NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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CALENDAR FOR OCTOBER.

OCTOBER is upon us, with its transparent atmosphere, and clear, cool evenings. The *Summer* is over and gone. Through the first *Autumn* month we have approached, as it were, the bridge which divides *Summer* from *Winter;* we are about to pass it. Let us pay cheerfully the toll of grateful hearts.

The forests have put off their beautiful robes of green, so pleasant to the eye, and so cheering to the heart, and now stand clothed in their gorgeous Autumnal hues—pranked out in their richest apparel, only to be laid in the dreary grave of Winter. They shall rise in renewed verdure, and thus Nature gives her sanction of immortality to Revelation. He who has said, "seed time and harvest shall not fail," has blessed the husbandman with abundance, and this is the time for his thanksgivings to ascend to that Giver of All Good for his benevolence and his mercies.

No month in the whole year presents a time more suitable for reflection than OCTOBER. The heat, the labor and the hurry of Summer have passed away—the harvest has been mostly gathered in, the days are cool, clear and comfortable, the evenings are getting long, and the cheerful fire blazes on the hearth, soon after the sun disappears. During the day-time the odds and ends of the farm work are leisurely gathered up by the snug and thrifty farmer, and all the necessary preparations are made to enter joyously upon the ice-bound season so soon to follow. The late fruit is carefully gathered and packed away for preservation or sale, or is converted into some pleasant beverage for winter use—the latter harvests are stowed away in the barns and granaries—the flail and the threshing machine are busy with their clatter. [We sometimes almost regret that the threshing machines were ever invented, for to our ears, there is nothing more cheering than to hear from all around a farming neighborhood the measured clack of the flail, as it comes longer, or more faint, according to the distance, or to the thickness of "the threshing" upon the floor. Every farmer who was a boy ere threshing machines came into use, will doubtless recall the hours and hours that he has listened, in a still, sunshiny day, to the clack, clack—clack, clack—clack, clack, of the flails coming from the threshing floors for miles around him. Many and many a time have we done so.] The cattle floor is carefully prepared for its winter tenants.

Are there any loose clapboards or battens upon the barn, they are made fast, and every air-hole through which the sharp blasts of winter can penetrate to make the cattle uncomfortable, are carefully closed up, for "the merciful man is merciful to his beast," and the good farmer would no sooner see one of his oxen suffer from cold through his own negligence, than one of his children. As the sailor, when he sees the storm approaching, takes care "to make all snug"—so the good farmer, as winter approaches, takes care to make all comfortable.

And the evenings of OCTOBER! Go with me to farmer Wellman's, and let us see how those evenings are passed. The sun has just gone down in a clear and cloudless West, and the chill of evening is approaching. Do you hear Goodwife Wellman—"John, it's time to build a fire in the sitting-room; the evening is a-going to be chilly, and your father and the men folks will be in directly." John—a boy of perhaps eight or ten summers—for farmer

Wellman's boys begin to help round early—does as he is bidden, and soon a bright fire is blazing upon the hearth. The farmer and his family, having partaken of a bountiful repast, gather around the cheerful blaze. Farmer Wellman takes his comfortable chair in the corner, and the wife and daughters are seated around the table, sewing, or knitting, or performing such still household duties as are requisite; the boys are variously disposed. Farmer Goodyear and his son Thomas come in to spend the evening, and there they sit and discuss the whole round of farmers' duties—the crops—the prospects,—&c., &c., and as likely as not they end their evening conversation by a discussion of national or State politics, for no men are better *posted up* in such matters than these two farmers. The women folks talk of their butter and cheese, their caps, bonnets, dresses, &c., and the younger fry engage in such conversation and fun as befits the time and place. The old clock in the corner strikes ten. The visiters, with the asseveration "that they didn't have any idea it was so late," bid good-night; the family assemble around the table, the Holy Book is read, and an ardent and sincere prayer ascends to Heaven, and then all is hushed and still in that dwelling, till daylight begins to streak the East, when the bustle of a new day of labor and happiness is welcomed with thanksgiving; and so pass away the October days and nights of Farmer Wellman and his neighbors.

And with the beautiful rotation of the seasons, pass the beautiful rotation of the farmer's labors and the farmer's pleasures. Honest industry is sure to afford independence, happiness, and peace at *all seasons of the year*. The farmer depends more than any other upon the beneficent God above him, and the yielding earth beneath him, and every other occupation in life depends mainly upon the farmer. Honored and respected beyond all other employment, be that of him who tills the soil.

But, bless me, and yourself too, kind reader! We have become so interested in the pleasures and appearances of October, that we had well-nigh forgotten its appropriate *duties*, and must leave them now to your own good sense and suggestions; only hoping that beautiful October may prove to each of you, all that we have said of it above.

For the New England Farmer.

COUNTY SHOWS.

On looking over the appointments for these, it seems they are to be holden in *five* of the counties, on the 26th and 27th days of September—in *four* of the counties, on the 3d and 4th days of October—in *four* of the counties, on the 10th and 11th days of October. Might they not be so arranged as to come on successive days, between the 20th of September and the 20th of October? Ought it not to be provided by law, that all those societies which are sustained by the bounty of the State, should have their exhibitions at such times as the Board of Agriculture may direct?

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For the New England Farmer.

RAPE PLANT.

Noticing the communication of "P. A. F.," of Shaker Village, N. H., and "A. B.," of Sudbury, I remark that there is a summer and a winter variety. The seed of the former is not quite so large as the latter sort, which was probably tried by both of your correspondents, but better suited to the New England climate. It is the same as is imported from Germany and Holland, and sold by the name of Dutch rape. That known in the market as English rape, is the winter variety, and is mostly imported from England. I have a patch of summer rape now in bloom, which was sown in drills in May, and some of the lower seed-pods have nearly filled out. The seed sells at about $4,00 per bushel, and as the grower in this country is protected by a duty of 10 per cent., it certainly seems as though we ought to supply our own market. The only crop that ever came within my personal knowledge in this country was raised by a farmer in Pennsylvania, who thought that it paid him well at $2,50 per bushel. It will grow on any piece of land that will produce turnip seed. The plants should be left standing about 18 inches apart.

W.

For the New England Farmer.

THE PROGRESS APPLE.

The *Progress Apple* is a native of this place, and the original tree is now standing,* although it has probably yielded regular crops from a period quite remote.

Situated as it was, where farms have been well stocked with apple trees yielding good fruit in great abundance, its good qualities were not immediately tested, and it was at first considered only as a late fall apple. But they were found, after a fair trial, to rival the best winter apples as a late keeper; thus they are a favorite for the table from October to April. The tree is a good grower (not quite so rapid as the Baldwin) and forms a very handsome head; bears early, regularly, and most abundantly.

Fruit rather above medial size, roundish, and very fair; skin smooth, and when gathered, a light green, with a tinge of red in the sun; when fully ripe, a clear light yellow, with a beautiful blush on the sunny side, and sometimes sprinkled with a few scattered gray dots. Flesh very tender, juicy, with sprightly and remarkably agreeable flavor. As a market fruit it is very profitable, owing to its productiveness and ready sale. The trees bear well by the road-side, or in pastures, and in the cultivated garden or orchard the fruit is superb.

They have not failed for years to draw a premium from the Middlesex County (Conn.) Agricultural Society, and at the Connecticut State Fair last October, took the first premium as best new seedling. It deserves an extensive dissemination, and is sure to do well in any of the Northern or Western States.

P. M. Augur.

Middlefield, 1855.

* The old tree stands on land of Alvah Coe, formerly of old Esquire Miller, and for some time was called *Esquire Miller's best.*

For the New England Farmer.

A VIEW OF LABOR.

Mr. Editor :—Manual labor or work is dreaded by some, and despised by others, and very few have a natural love for it. The love of labor is acquired by habit and perseverance, in a great measure. God made man dependent upon his own efforts to feed and clothe himself; he has hands, and intellect to direct his hands, and God has shown no partiality in the formation of any class of individuals as an exemption from labor, or promised prosperity to spring from habits of idleness. Among savages and other improvident people, starvation, as a punishment, is the inevitable consequence of their indolence and disregard to the faculty of foresight. Farmers and mechanics have frequently failed for want of self-respect. Instead of herding together, as the manner of some is, in low drinking houses, to degrade themselves, if they would spend their leisure hours in using means to inform, enlarge and elevate their minds, by reading the productions of good, well-informed authors, or meeting together to lecture each other on the subjects of their respective callings they would soon find that instead of being degraded by labor, that degradation had sprung from another cause. Ignorance and vicious habits will depreciate a man's self-respect and often lessen his self-esteem. The farmer who is supplying the world with the staff of life, ought to consider his position as high, and his occupation as respectable, as the quack that supplies the world with his nostrums, impregnated with the seeds of death, or the mountebank that gets rich by his impositions practised upon a credulous multitude.

It is the *man* that makes his calling respectable, and not the calling the man,—an infamous character will disgrace any profession. Labor has a moral influence connected with it; there is less dissimulation and temptation to dishonesty among farmers and other laboring classes, than exists among politicians and the learned professions. The man that labors ought to consider himself a *man*, and use the means to be a respectable man, and that will elevate his business to respectability; let him qualify himself to fill his station, be it what it may, by gaining the requisite knowledge required to make him master of his art, whether farmer or mechanic, then he will have confidence enough in himself to have a mind of his own, and not feel degraded at seeing the displays of officious coxcombs that make pretensions to superiority.

After all the arguments and examples to the contrary, a good moral character is an essential ingredient in the formation of a man. A rogue, himself being judge, esteems an honest man more than one of his own feather. What man whose character for knavery is established, can abide long in a place? He is like the troubled sea, and has to live by shifting his place and changing his name, and wants eyes behind to see who is in pursuit; once a rogue, always suspected. No man under the sun, who knows right from wrong, or has any regard for his own good, who will not enjoy himself better, and wear a more comfortable conscience by working either by hands or head than spending his time in idle dissipation. That the impression gained credence, or prevailed among mankind, that labor was the curse of God for Adam's disobedience, is preposterous; when he said to Adam, "in the sweat of thy brow thou shalt eat bread," the prediction or admonition is rather to be considered as the prescribed means of self-preservation, than as a curse on him for disobedience. Labor and health are so dependent upon each other, that we may as reasonably consider health a curse as to consider labor a curse. And to wind up: an idle man, whether rich or poor, is an excrescence deriving its nutriment from the industry of the working classes of the community, and merits the curse for his laziness and breaking the fourth commandment as much as Adam did for his disobedience.

Wilmington, 1855. Silas Brown.

For the New England Farmer.

REMEDY FOR CURCULIO—APPLE TREES.

Mr. Editor :—I noticed in the *Farmer* of June 30, a communication from John P. Wyman, upon the ravages of the curculio, and have since been looking for some person to point out a remedy. I have for years been unable to obtain plums in consequence of that insect. This season, having made an ointment by mixing snlphur with yellow snuff in lard, and applying it to the body and limbs of the trees, I have so far checked their operations as to allow the trees at this time to give promise of an abundant crop.

Mr. Wyman appears to despair of good results from his apple trees. I think him premature in his conclusions; there are, probably, a number of reasons why he has not a good crop; his trees may be making wood too fast to bear fruit. I have some in that condition, and I have noticed the same in other orchards, which have afterwards yielded abundantly. Mr. W. speaks of a fine blossom this year; it was so with many of my young trees which have now less than a dozen apples each, and yet I cannot attribute it to the insects entirely, as trees of the same age, and in the same orchard, are now loaded to excess with the choicest fruit. This result would surprise me, had I not for years been acquainted with the character and habits of these different kinds of fruit. If Mr. W. would make an investigation, he would probably find that the trees from which his sprung, have been in the habit of producing their main crop in the even years, and that his trees being a part of the original tree, will ultimately develop the characteristics of the parent.

If Mr. W. will take the trouble to call on me, I will show him some trees, burdened with choice fruit, than which none better can be found in the country, which have been in the habit of bearing abundantly in the odd years only, resting from their great exertion through the even years.

Mr. W. need not despair since such fruit may be introduced into his orchard.

Charles Eastman.

South Hadley, Aug. 24, 1855.

Good Horse Provender.—The best provender that we ever gave to a horse was a mixture of two-thirds oat meal and one-third corn meal. The oat meal had been thought by some physiological chemists to contain much muscle, or flesh-forming matter, and the corn meal to contain much fat-forming material, and therefore, when combined together, we get both principles combined. Our experience with this feed corroborates the above theory.

A writer over the signature of W. W. B., in the

Rural New-Yorker of the 21st, recommends a mixture of oats and rye for horses. We think his plan of raising the two together, pretty good, and we therefore copy it.

"I had," says he, "a conversation with a man lately, who was an experienced farmer, having farmed both in this State (N. Y.) and Ohio, and his manner of raising horse feed was this:—I take about 2½ bushels of oats, and mix with them one bushel of rye, and sow this amount to the acre. The rye will support the oats in case of a heavy growth, and prevent lodging. In this manner I have raised sixty, seventy, and even eighty bushels per acre." The soil must have been very strong to do that, but the mixture is about in the right proportion.

A MORNING IN A MARKET GARDEN.

The large farmer, who raises broad fields of wheat, corn, potatoes and oats, and pastures and milks or fats herds of cattle, might find lessons of pleasure and profit by an occasional visit to some of the market gardens in the vicinity of Boston. Unless he has already done so, he little conceives what a different kind of business the cultivation of those gardens is, compared with the ordinary modes of farming, and what an amount of product they are forced to yield. Such a visit would afford him many excellent suggestions as to his own modes of culture, and would enable him to supply his table with the choicest fruits and vegetables, and to produce the latter in great abundance, at a cheap rate, for the stock of his own farm.

We were invited last week to look at the gardens and grounds of Isaac P. Rand, Esq., of Roxbury. Mr. Rand is one of the firm of *Rand & Darling*, Quincy Market, who deal largely in all sorts of vegetables. Their sales of sweet potatoes this year, at the rate already attained, will be nearly *thirty thousand bushels!* the collecting, packing and shipping of which requires the time of one or two men for several months at the South.

The grounds Mr. R. cultivates at Roxbury were originally of the roughest and most forbidding character; covered with ledges and boulders of that peculiar character called pudding stone, and mingled with them, briars and bushes of every description. The large rocks have been used in one of the most beautifully constructed as well as substantial stone walls we have seen, and hundreds of tons of the smaller ones in the ditches that underlie every part of the garden. All this, however, did not clear the grounds, as there is scarcely a square foot now but is covered with the flint-like pebbles broken from the masses of pudding stone, or with its softer and decaying parts. The hoe must ring at every stroke, and the plow grumble as it goes like a young volcano beneath the feet. And yet this land, with all these difficulties to contend with, is annually covered with the most luxuriant and perfect crops, and is a striking illustration of what skill and industry may accomplish.

These gardeners are not content with one or two crops, the same season, but force the soil to yield three; beginning, perhaps, with early peas, then potatoes, and closing with cabbages, celery, or some plant not easily affected by the frost. But *two* crops is common on nearly all the land they cultivate. Where we saw sweet corn just getting large enough to boil, some other crop had been cultivated, harvested, and sent to market. Half an acre in celery had yielded a good crop of onions this season, and so of many other things. The soil itself is fine, porous and warm, so that when highly manured, seed germinates quickly, and the young plants grow rapidly. But in order to accomplish all this, large quantities of manure are necessary, and these they procure from the stables where the omnibus horses are kept in Roxbury.

On visiting the house, we discovered something of the secret of Mr. Rand's success in gardening, in a well-selected library. He has not been entirely satisfied with the experience of himself or his father, who cultivated the same grounds many years before him, but has sought information from the experiences of others in our own country, and in the best foreign works which treat of his business. In this way he avails himself of the improvements which science suggests, and the knowledge gained by others in similar pursuits.

We found both gratification and profit in our visit, and have no doubt our farmer friends may do the same by spending a morning in some one of the numerous market gardens in the vicinity of Boston.

For the New England Farmer.

INQUIRIES ABOUT HORSES.

Mr. Editor:—I am a constant reader of your monthly. I have always worked on a farm, and like to be about horses. Having seen an article in your weekly, entitled, "A Short Chapter on Horses," I am induced to make a few inquiries respecting them. And first, allow me to ask if I should be likely to get a good colt from a mare that is very stout built, but a rather clumsy traveller, and carries her mouth a little open if her head is checked up, but shut if she is allowed to carry it as she pleases, which is very low? She is a first-rate work horse. The stallion is a noble animal, rather more than medium height (the mare being short-legged,) with a fine head and neck, is deep through the shoulders, full breast, and is altogether a very fine figure.

I am fond of riding horse-back. Will you please inform me of the best method of training a horse to the saddle? Is it a good plan to "bit" horses? Can a long-gaited horse be made to stop short, by checking the head higher, or in any other way.

August, 1855. An Inquirer.

Remarks.—Proper answers to all these queries would be of service to many persons, and we hope some one well acquainted with the subject will reply to them through the *Farmer*.

U. S. AGRICULTURAL SOCIETY.

SCHEDULE OF PREMIUMS.

Premiums will be paid in silver plate or money, at the option of successful competitors, who must become members of the society; and the beautiful Diploma of the society will be presented to every Exhibitor to whom a Premium is awarded.

CLASS I.—CATTLE.

No. 1.—THE HERD PREMIUM.

For best Bull and four Cows, from any one herd.....$300
For 2d best do. do.....100

No. 2.—SHORT HORNS.

BULLS.

Three years old and upwards, 1st premium.....$100
do. do. 2d premium.....50
do. do. 3d premium.....Diploma.

Two years old and under three, 1st premium.....$50
do. do. 2d premium.....25
do. do. 3d premium.....Diploma.

One year old and under two, 1st premium.....$25
do. do. 2d premium.....10
do. do. 3d premium.....Diploma.

COWS AND HEIFERS.

Three years old and upwards, 1st premium.....$100
do. do. 2d premium.....50
do. do. 3d premium.....Diploma.

Two years old and under three, 1st premium.....$50
do. do. 2d premium.....25
do. do. 3d premium.....Diploma.

One year old and under two, 1st premium.....$25
do. do. 2d premium.....10
do. do. 3d premium.....Diploma.

No. 3.—DEVONS.—*Premiums the same.*

No. 4.—AYRSHIRES.—*Premiums the same.*

No. 5.—HEREFORDS.—*Premiums the same.*

No. 6.—JERSEYS.—*Premiums the same.*

No. 7.—GRADE COWS.—*Premiums the same.*

No. 8.—NATIVE COWS.—*Premiums the same.*

No. 9.—MILCH COWS.

Five years old and over, 1st premium.....$100
do. do. 2d premium.....75
do. do. 3d premium.....50
do. do. 4th premium.....25

Three years old and under five, 1st premium.....$75
do. do. 2d premium.....50
do. do. 3d premium.....25
do. do. 4th premium.....15

No. 10.—WORKING OXEN.

Four years old and upwards, 1st premium.....$100
do. do. 2d premium.....50
do. do. 4d premium.....25

No. 11.—STEERS.

Two years old and under four, 1st premium.....$50
do. do. 2d premium.....25
do. do. 3d premium.....15

No. 12.—FAT CATTLE.

Fat Bullock, 1st premium.....$75
do. 2d premium.....50
do. 3d premium.....25

Fat Cow, 1st premium.....$50
do. 2d premium.....25
do. 3d premium.....15

CLASS II.—HORSES.

The premiums on horses vary from $200 to $20; want of space prevents us from enumerating them.

FAMILY HORSES.

1st premium.....$100
2d premium.....75
3d premium.....50
4th premium.....25

DRAFT HORSES.

Matched Draft Horses, 1st premium.....$100
do. do. 2d premium.....50
do. do. 3d premium.....25

Single Draft Horses, 1st premium.....$50
do. do. 2d premium.....25
do. do. 3d premium.....Diploma.

On Tuesday afternoon, Oct. 23d, a trial of speed will be held, open to all horses that have never trotted for money. Exhibitors to drive, and to be persons who have never driven for money.

1st premium.....$200
2d premium.....100

On Wednesday afternoon, Oct. 24th, a trial of speed, open to all horses that have never trotted for money. Free to all drivers.

1st premium.....$200
2d premium.....100

On Friday forenoon, Oct. 26th, a grand trial of speed, free for all trotting horses and all drivers.

1st premium.....$300
2d premium.....100

CLASS III.—SHEEP.

Premiums range from $25 to $10, and 36 of them are offered, and 10 Diplomas.

CLASS IV.—SWINE.

Twenty-six premiums are offered, varying from $25 to $10.

DISCRETIONARY PREMIUMS.

One thousand dollars have been set apart by the Executive Committee, to be awarded in discretionary premiums, should objects of *special interest*, not provided for in any of the classes, be presented.

For the New England Farmer.

SHORT PASTURES.

On all sides we hear complaints that feed is short. The milkman says his cows are falling off. The butter man says that his cows do not give their usual measure;—that he must cut off a pound from each of his customers. What shall be the remedy for all this? I prepared for this in the spring. I planted corn in May and June, that I might have it to cut up in August and September, ready to be distributed to the cows every night on their return from pastures. But, says the careful calculator, "of what use is it to distribute green corn to cows? It will not increase their milk. I have tried it again and again, and am satisfied of this." Can this be so? It is so averred by sensible men. I have often heard it, and could name them. Why it is that an article of food so palatable and nutritious as green corn is supposed to be, will not produce milk, it is not easy to understand. That this kind of feed will continue the animals in good condition, and improve their butter products, is clear beyond doubt. In proof of this I beg leave to quote a paragraph from an address by TIMOTHY PICKERING to the Agricultural Society, February, 1828, of which he had just been made President.

"Every farmer knows how eagerly cattle devour the entire plant of Indian corn in its green state. Some years ago, just when the plants were in the milk, I cut close to the ground the plants growing on a measured space, equal, as I judged, to the average product of the whole farm, and found that at the same rate, an acre would yield twelve tons of green fodder; probably a richer and more nourishing food than any other known to the husband-

man." * * * "It has appeared to me that the sort called *sweet corn* (having a white, shrivelled grain when ripe) yields stalks of richer juice than the common yellow corn. It is also more disposed to multiply suckers,—an additional recommendation of it, when planted to be cut in its green state, for horses and cattle, and especially for milch cows; and its time of planting may be regulated so as to furnish a supply of food, just when the common pastures usually fail. I am inclined to doubt whether any other green food will afford butter of equal excellence."

In September, 1828, in his last address to the society, Col. P. says,—"The great value of Indian corn stalks, in their green state, for feeding cattle, milch cows, especially, I have formerly mentioned. To have this fodder in its green and most juicy state, it should be planted at different times; so that the latest planted should attain its proper growth by the middle of September, and continue till the frost comes, at the close of the month, or early in October." Thus we see his *first* and his *last* lessons of instruction to the farmers of his county, recognized green corn fodder as a valuable feed for milch cows.

I frankly admit these quotations do not prove that cows when fed on green corn will give more milk for being thus fed—but they come so near establishing the fact, that I think it will be taken for granted, until the contrary is clearly shown, by authority more reliable than that of Col. Pickering.

August 25, 1855. AGRICOLA.

CROSSING SHEEP.

For upwards of fifty years I have seen a great deal of crossing the different kinds of sheep—Leicesters with Leicesters, Leicesters with Cotswolds, Leicesters with South-Downs, and Leicesters with many other kinds of sheep. I have always found the Bake-well or Leicester sheep to improve every kind they have been put to, by giving them the Bakewell barrel form, small bone, and to feed at early maturity. The first cross in most animals has been proved the best; the next cross generally produces size and weight, except you put a gigantic animal to the first cross: when I say gigantic, I do not mean an animal made a giant with fat flesh, with the head and ears of a dwarf upon him—I mean a giant in frame when in a lean state, with bone in proportion, aye, and a head and ears in proportion to his body—a long, thin head, and not a gigantic broad one. Giants do not produce dwarfs, neither do dwarfs produce giants, any more than bulldogs produce greyhounds. It has been proved that a gigantic ram has been produced from a dwarf ewe; at the same time, it was proved that a giant ram lay in the adjoining field, which very easily accounted for the giant being produced from a dwarf. It has always been said that like produces like, and a fine bone denotes a feeding propensity, and a long face and ears, with a Roman nose, denotes a large breed. The breeders of Lincolnshire sheep say that neither the Cots-wolds nor the Downs mix well with their heavy-wooled sheep, but a dip of the Leicester does wonders. So says the far-famed Mr. Kirkham, of Hagnaby. Mr. Bakewell always said that extremes were bad, and that the middle-sized animals answer the best for profits. But, above all things, said Mr. B., let an animal's make be in proportion—not very large in one point, and very deficient in another. Size has nothing to do with profit; it was not what an animal made, so much as what it cost making. The Lincolnshire farmers are second to no men in the improvement of waste lands; the Wolds, Lincoln Heath, and the Fens, for instance: the lower parts are now drained by steam engines. And the breed of sheep which they have is the most profitable for their county. SAMUEL ARNSBY.—*Mark Lane Express, London.*

MR. MECHI'S MODEL FARM.

We find the following notice of Mr. Mechi's farm at Tiptree Hall, England, in the *New York Tribune*, furnished by its correspondent, "M. T. H." Mr. Mechi was not bred a farmer, but a tradesman, in London.

Once every year, just at the close of the London season, when every one in town is sighing for a breath of country air, just before the commencement of the harvest, when the green wheat, fully grown, is just beginning to get the first tinge of gold upon its ears—once a year, when the days are hottest in the town and brightest in the country, Mr. Mechi has an "Agricultural Gathering" at Tiptree Hall. To this gathering are invited all the notabilities of the day—Ministers of the Crown and Ministers of the Gospel, Poets and Plenipotentiaries, Peers and Commoners, Lawyers and Literati, Citizens and Country-folk, Tradesmen and Farmers, imitators and admirers, all turn out to see "Mechi's Model Farm." To these, collected at his hospitable Hall, Mr. Mechi proceeds to show his improvements. He walks them over his fields and through his stock-yard—he expatiates upon his difficulties and explains his improvements—he discourses on his crops, exhibits his machine, lectures learnedly on his manures, shows how he distributes them, and when the party have acquired sufficient information and astounding appetites, he concludes the day by setting them down to a banquet such as a Londoner alone knows how to manage.

Now that politics are no longer mixed up with Mechi's model processes, and now that all parties will consent to hear and think of Tiptree farm without prejudice, I shall have a chance of being listened to, if I tell you quite the truth concerning it, and lead you to regard it as it is, and not as you would see it through the spectacles of faction. As a place of country resort, then, I am bound to say in the first place that Tiptree Hall is one of the least pleasing I ever chanced to visit. England is proverbial for its pleasant places. Who, in your back woods, however improved may be his material condition, will not sigh at the fond remembrance of the village home in which he grew—of the white church spire that pointed up to heaven so fondly from the clustered elms of the old manor-house, scenes of many a farm-house and Christmas revel, of the clear, bright, never-failing stream that rippled past his cottage door, the village green on which he fought his earliest battles, the lane so calm, so tranquil in the evening shadows, where he courted the first fair object of his love, the bank where grew the earliest and brightest primroses, the bean-field that exhaled its thousand odors to the dewy evening, the cultivated farm, the busy mill, the meadow where the land-rail craked, the pile from which he caught that first glimpse of the

wide, wide world, that taught him there was something beyond his lowly lot, and that tempted him, perchance unwisely, to desert it: Alas! alas!

But Tiptree Hall is unconscious of all this. Situated on an elevated, bleak and barren heath, without a tree within a mile of it larger than a laurel, it boasts not a single rural beauty, such as we regard rural beauty in this country. Mr. Mechi has made a great effort to compensate for this by artificial gardening; but though everything has been done that a cultivated taste and a lavish expenditure could effect, yet the result, as a whole, is eminently unsatisfactory. Terraces and embankments have been thrown up to relieve the flat monotony of the landscape—a bog has been converted into a series of little lakes—walks of every possible variety have been wound around plantations—tender shrubs have been planted and effectually reared on spots where nature never intended that a shrub should grow—flower beds have been laid out with all the elaboration of which the Italian style of gardening is susceptible—color has been properly introduced where nothing was to be seen but drab-colored heather—but still the result is unsatisfactory. The place, in fact, as a retreat, has no capabilities. Nature has pre-determined that there shall be about it none of the specialities of an English farm, and Nature has yet, in this respect, been too strong for man.

But what of Tiptree as a "model farm?" Is it what it professes to be? Is it what Sir Robert Peel described it? Is it an example which the farmers of the world may advantageously consult and imitate? Now, as to this point I must frankly say that my notions are poised so very equally in my mental scales, that I am unable to give a distinct or satisfactory reply. I have seen better things in farming than Tiptree Hall, many better things; but while I declare this, I must also acknowledge that I never saw so remarkable an example of what industry and enterprise may accomplish under the most unfavorable circumstances. Certainly no one but a man accustomed to get sharp edges from the collision of steel and stone, ever would have thought of trying to cultivate such a place at all. One would fancy that Mr. Mechi had taken up an idea from his shop that you could get a good crop out of stones as well as a keen edge. You should have heard his own account of what Tiptree farm was when he came there! "Vainly," said he, "did I try by solid manures to render this vile, plastic clay, a useful pasture. It was like bird-lime in Winter, and like cast-iron in Summer. Poor, indigenous and drab-colored grasses, choked and eradicated the finer kinds I had sown, and the animals wandered about, hollow and dissatisfied. Now, fine and fattening grasses clothe the fields with perpetual verdure, the land keeps three times as many animals, and the close and shaven pasture indicates their affection for it." And this description of Mr. Mechi's pasture is a fine description of his whole farm. Where the drab-colored grasses were alone seen ten years ago, crops of the finest wheat, barley and oats now clothe the wold, and greet the sunshine as it merrily glances from the heavens. Every one admits that there can be no finer crops. They are grown from very small quantities of well selected seeds; but these small quantities, under Mr. Mechi's system, seem to be more productive than large quantities any where else.

How, then, have these results been produced? The answer is simple. By deep drainage and liquid manures, regardless of expense. Mr. Mechi's knowledge of chemistry taught him that the worst soil might become better, by allowing their pores to be fermented by the sweet rains of heaven. Every clod in the hard clay at Tiptree was choked by stagnant water. He drew it off by deep drainage. Then the plow let in life and light upon heaps of earth which had never felt the influence of either. Still, though the land was broken up—though from a hard, cold clod of clay, it had been converted into a dry wold—still, it was poor and needy. Mr. Mechi's next application to it was, accordingly, intended to give it strength and heat. By means of pipes carried all over the estate, liquid manure was laid on freely wherever it seemed to be required, and the ground soon showed how much it was strengthened and how much it was disposed to give a grateful and hearty acknowledgment of the favor conferred upon it.

In by-gone times it used to be a great joke with the farmers to ask Mr. Mechi where was his "balance sheet?" You may grow a crop upon one of your own razors, was the argument, but what will it cost you? For many years, while the price of wheat was low, Mr. Mechi was compelled to acknowledge that he had invested more in the soil than the soil returned him. But things have now changed, and Mr. Mechi retorts the joke upon the farmers. "It is not," says he, "the man who farms with the least expense, who makes the most money. When prices were low, and labor was low, I invested large sums of money in the land; now that prices are high, I invest no longer, but I reap the benefit of my investment at low prices. My fields produce more than yours; my returns are, consequently, greater than yours. And it is the result of investment in improvements at periods when improvements can be made at low rates of wages." Such are the arguments of Mr. Mechi. They are, to a great extent, of world-wide application, and I doubt not you have many on your side of the Atlantic, who will know how to apply them profitably.

For the New England Farmer.

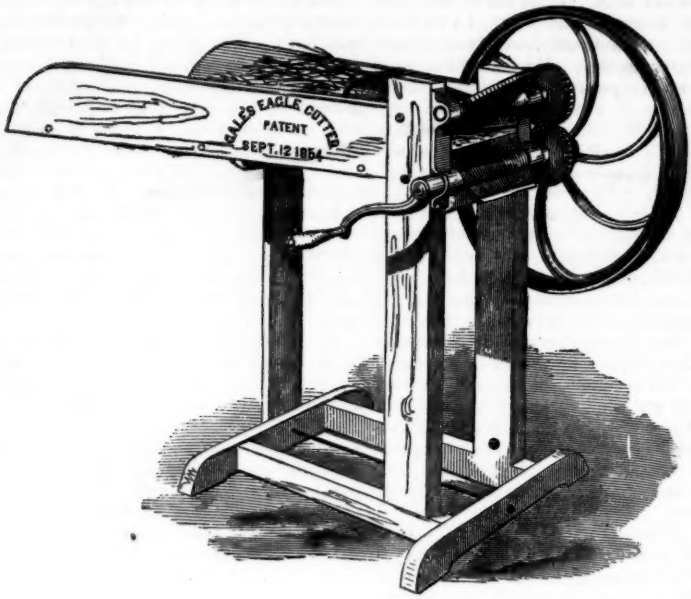
MURIATE OF LIME AS A TOP-DRESSING.

Mr. Editor:—I tried an experiment with the muriate of lime upon a lawn of about half an acre. The land was laid down and sown with herd's-grass and red-top last year without any manure. This spring I gave one-half the lot a top-dressing composed of three barrels of muriate of lime mixed with six cart-loads of meadow mud. The effect astonished me, and at the time of cutting the grass, I called a number of my neighbors to see the effect of the top-dressing, and all who saw it decided that there was full double the quantity of grass upon that part which was manured, over that which was not; the soil was of the same description, and laid down side by side.

Some of my neighbors have tried this article upon their meadow land, and with a like result. I consider it a very valuable manure, especially for grass lands, and am now having a large pile composted for next season.

Yours very truly, D. Wood.

Lexington, Aug. 20, 1855.



GALE'S STRAW CUTTER.

It is now certain that the hay crop in all eastern Massachusetts, and in several other parts of New England, will be a short one; flour is still at a high figure, corn commands an unusual price, the Southern yellow being sold, at wholesale, at $1,05 on the 1st of September, and rye and other grains proportionally high. Early frosts have already materially injured the corn crop in this region, and *hay will be high.* We do not say this from any anticipations of want, but merely to suggest a commendable prudence in the use of the fodder which has been laid by. This may be done by judicious feeding, such as changing the feed, by supplying it frequently in small quantities, but mainly by cutting and mixing the various kinds of hay or straw with roots or meal.

There is various machinery for cutting fodder, and in our judgment it is economy to use the poorest machine among them all, rather than to feed it out long; and this opinion is based upon a winter's experience in feeding eight or ten cows and a horse with cut feed.

In the number of the *Farmer* for January last, we spoke of a machine for cutting hay, called *Gale's Straw Cutter,* and gave the inventor's description. This machine we have had constantly in use since that time. A few days since our attention was called to one of the kind, to which has been applied some important improvements, and which are illustrated by the engraving at the head of this article. These improvements consist of several alterations, but the principal one is the addition of another knife—giving two knives instead of one, and doubling the quantity cut in a given time without materially increasing the amount of labor.

A person of ordinary strength may cut a common bundle of corn-stalks in this machine without over-exertion, and hay and straw, with a rapidity and ease altogether unattainable in any other machine we have ever used.

It is also so simple in its construction that any farm hand may take out the knives and sharpen them, or adjust the raw hide properly against which they cut.

If a person has but a single horse or cow, it would be good economy to purchase and use one of these cutters, as the saving made would pay for it in two or three years, while the machine would be left, and would last, with care, for twenty years to come.

It is for sale, at various prices and of various sizes, at the Agricultural Warehouse of Nourse & Co., 9 and 13 Commercial Street, Boston.

Iron Tablets for Orchards, &c.—We had on exhibition, sent in as samples by the manufacturer, iron tablets, 17 by 23 inches, on which is printed, in raised letters, (covered with paint, bronze or gilt,)

so as easily to be read, a copy of "An act for the better protection of orchards, gardens &c.," intended to be placed in some conspicuous position on a post or tree in the grounds. The manufacturer has placed them for sale at the various horticultural and agricultural warehouses in the city. Every town throughout the Commonwealth should instruct their Selectmen to purchase some of them, to be fastened on guide-boards, as a protection for fruits, flowers and cranberries.

For the New England Farmer.

LABOR-SAVING MACHINERY.

MR. EDITOR:—It was my privilege, a few days since, to witness some of the operations on the farm of Mr. FAY, of Lynn, which have contributed to the formation of fertile fields, where very little grew before; and which now continue them in successful culture, at an expenditure of labor greatly abridged, compared with the products grown thereon. Among these is a machine for *planting*, *thinning* and *weeding*, moved by horse-power, which, judging from the products now growing, does its work to perfection. This machine was introduced from England, at an expense of $140, but is so much more complete than anything of the kind I have seen elsewhere, that I would commend it to the notice of all curious observers. No person can look upon the extended field of turnips, beets and parsnips there growing, as also Indian corn, to all of which no hand labor has been applied, and not be struck with the operation of the machine, and the benefit accruing from its use.

I also saw in operation a *Rock-Lifter*, exceedingly well calculated to relieve our New England farms of many troublesome incumbrances—especially in the way of the plow and of the mower. By the help of this implement, I believe that two men, with one pair of cattle, had taken out from their original position more than one hundred stones in one day, averaging three tons each, and transferred them to the foundation of a wall, where they were made useful for a fence, thus doubling the value of an acre of land, for purposes of cultivation. Whoever would know more of these operations, can easily learn, by calling on Mr. D. Wetherbee, the farmer on the premises, who will take pleasure in communicating instruction to all who wish to learn. Mr. FAY is one of those theoretic farmers, who *preaches well*, and *practices better*.

September 1, 1855. *.

For the New England Farmer.

WORK OF MOWING MACHINES.

I have recently seen a statement of the work done by one of *Manny's machines*, the present season—54½ acres yielding 80 tons of hay, cut in 43¾ hours' labor, with a pair of horses. The person who used this machine, thinks the saving made in grass, as compared with the ordinary mode of cutting, would be fully equal to a fair price for cutting, *say one dollar per ton*. One cog and one tooth gave way during the operation, for want of proper care in management. He thinks he could cut fifteen acres in a day without unreasonable fatigue of the team. These facts are stated, not because they are extraordinary, but as showing what can be accomplished by a good farmer on his own farm.

Sept. 6, 1855. *.

For the New England Farmer.

OURS AN AGE OF IMPROVEMENT.

BY JOHN GOLDSBURY.

The age in which we live has been denominated the age of improvements. In some respects, this is true, but not in every respect. It is true with regard to the inventions and discoveries which have been made in science and the mechanic arts; for, never, since the world began, has there been a time in which so many, so great, and so remarkable improvements have burst upon the world, in a like period of time, as during the past fifty years. These have taken place, one after another, in such rapid succession, that the public mind has hardly had time to subside from the excitement produced by the discovery of one improvement, before it has been again excited by the discovery of another, the magnitude and importance of which have astonished the world. These inventions and discoveries have produced new and important changes in our modes of living, and in the business transactions of the whole world. All the oceans, lakes and rivers are navigated by steam, and the different parts of the world are brought nearer to each other. The "steam-horse" is heard puffing round our hills and through our valleys, transporting the surplus productions of one part of the country to another. And steam power has been applied to propelling almost all the machinery in the world. Besides, the improvements which have been made in machinery itself are truly astonishing. And when we take into consideration the transmission of intelligence, from one part of the country to another, with the speed of lightning, by the electric telegraph, we are ready to admit, not only that we have lived in an age of improvements, but in a wonderful age. All these inventions and discoveries have taken place within the last fifty years. Mechanical science has advanced with strides so rapid and long, that many are anticipating the period, when, by the discovery of some new agency, or by some new application of an old one, we shall be able to travel through the upper regions of the atmosphere.

But the question we wish to consider, is, whether the science of agriculture has kept pace with these noble and truly valuable improvements? Truth and justice require a negative answer to this question. For, ever since the occupation of this continent by the Europeans, and until within a few years past, the cultivation of the soil, in any true sense of the word, has been almost entirely neglected. The system of cultivation, if it may be so called, was a retrograde system, a system of deterioration and destruction. The forests fell before the woodman's axe; the trees were burned on the ground; the fields were rapidly cleared, and sowed with grain; the earth yielded bountifully; man took the crop, but he made no returns by cultivating and enriching the soil. The consequence has been a regular and constant diminution of the products of the soil, till the farmers began to think that their lands were worn out, or had become entirely exhausted and worthless.

Within the last twenty years, however, a new impulse has been given to agricultural education, by directing attention to the nature and properties of different kinds of soils, and to the nature, character and elements of manures and other fertilizing properties. It was soon discovered that the old soils were neither worn out nor exhausted, but required

to be enriched, regenerated and cultivated. The discovery that potash, soda, magnesia, lime, &c., were, in fact, the oxides of metals, led the way to improvement. The elements of plants were examined, showing their similarity with the soils on which they grow, and the due proportions in which these elements exist in plants for their perfect development. The action of the atmosphere upon the soil, the influence of rain and sunshine on the growth of plants, the necessity and action of vegetable decaying substances, and the various agencies thus carried on for our benefit, have all been discovered, and are now well understood by every scientific farmer. Still, the application of knowledge, of science, of art to agriculture, is not, even at this day, generally understood or widely disseminated; the number of scientific farmers is small. We have no schools, academies and colleges, especially devoted to giving instruction in agriculture. The farmers, the producers, the very foundation and means on which all other classes are constructed and supported, are without a single school, academy, or college, devoted to giving instruction in the application of chemistry to agriculture. All the knowledge which has been acquired on this subject, has been given to the young, showing the connection between chemistry and agriculture. They have never had exhibited to the eye and understanding, any experiments on the all-important subject of farming. "These things ought not so to be."

As a class, farmers far outweigh in natural advantages every other class; in numbers, they constitute more than three-fourths of the whole nation; yet, strange to say, that, as yet, they have never received any adequate instruction in their high calling—a calling, which, in truth, demands as high an education for its perfection, as any other position in life. There is the same necessity for shedding the light of science on agriculture, that there is upon law, medicine, commerce, manufactures, and the mechanic arts. And no one but a quack would think of following either of these as a calling, till after he had devoted to them years of attention and study. A lack of interest on the subject of agriculture, is generally equivalent to a lack of knowledge; for, all who attend to it and study it as a science, become deeply interested in it; and the more they know, the more they desire to know. But poor farms, poor stock, poor productions of every kind, are the natural and necessary results of neglecting this study.

Staggers in Sheep.—Formerly I lost sheep by this disease, until by experiment I discovered a remedy, which has not failed me for many years, and I think it a safe as well as a sure remedy. About twelve years since I found that a nice ewe of mine, which had two fine lambs, was affected with this disease. She was down by the fence, at the side of the pasture, and when she endeavored to walk or run, would stagger and fall, and appeared to be blind. I went to her, took my knife out, cut off an ear close to the head, and to my surprise found the blood did not start; not so much as one drop could I obtain. Thinking my sheep as good as dead, I concluded to try experiments upon her. I returned to my dwelling, and taking a bottle of spirits of turpentine in my hand, went again to the pasture. I had been absent perhaps an hour, but the sheep had not moved from where I left her, and there was no discharge of blood from the ear. I poured perhaps 20 drops of turpentine into one ear; and after waiting a few minutes, I turned her over and poured the same quantity into the other. She soon began to shake her head, and a stream of blood ran from her amputated ear. In an hour she was apparently as well as ever. Since then I have used the same remedy, without cutting off the ear, and have never lost a sheep by the staggers.—*Rural New-Yorker.*

PEEPS INTO A BEE-HIVE.

There is nothing from the Master Hand, untouched by man, however small and insignificant it may seem to some, but is worthy of our careful study and investigation. We forget that the minute insect, or the worm upon which we tread with loathing and disgust, was framed and received the breath of life by the same Infinite Wisdom which created and animated us. They are governed by laws which they observe far more scrupulously than man does the laws which ought to govern him, even aided as he is by reason, a power they are not supposed to possess. We have no doubt that all the lower orders, even to the tiniest of them all, enjoy their little life, and contribute to carry out the general plan. If we studied them more, and became more familiar with their habits, we should lose all repugnance to them, and perhaps find lessons of value for every-day life in many of their works and ways. Let us see!

On the 17th of July last, we placed in our dining-room window an observing bee-hive, constructed of glass, so that all the operations of the bees could be plainly and conveniently seen. A comb about a foot square was placed in it containing some brood, with plenty of workers and drones, but *without the queen bee.* The hive was then carefully observed by one of the ladies of the family, who has given us the following account of their doings.

"The first business the bees attended to, was in commencing cells for a queen, and they prosecuted it with energy for two days. At the end of that time, a queen was taken from another colony and placed with them, upon which they pulled down the cells they had made in less than half the time it had required to construct them, and then began to piece out and repair the comb, which needed a corner. The queen at once commenced laying, and soon filled the unoccupied cells, when she was again removed, and the bees once more began the construction of queen cells.

The unhatched bees now began to come forth, and in two weeks the family increased so fast as to make it necessary for them to prepare to emigrate. So they built six queen cells, and in about twelve days, the first queen was hatched. As soon as she was fairly born, she marched rapidly, and in the most energetic manner, over the comb, and visited the other cells in which were the embryo queens, seeming at times furious to destroy them. The workers, however, surrounded her and prevented

such wholesale murder. But for two days she was intent upon her fell purpose, and kept in almost continuous motion to effect it. On the fourteenth day the second queen was ready to come out, peeping and making various noises to attract attention.

A part of the colony then seemed to conclude that it was time to take the first queen and go, but by some mistake she remained in the hive after the swarm had left. The second queen came out as soon as possible after the others had gone, and then there were *two* in the hive! Several minutes elapsed before it seemed to be known that she was left, and the two queens ran about on the comb, which was now nearly empty, so that they could be distinctly seen. But they had not apparently, noticed each other, while the workers were in a state of great uneasiness and commotion, seeming impatient for the destruction of one of them; and the mode they adopted to accomplish it was of the most deliberate and cold-blooded kind. A circle of bees kept one queen stationary, while another party dragged the other up to her, so that their heads nearly touched, and then the bees stood back, leaving a fair field for the combatants, in which one was to gain her laurels, and the other to die! The battle was fierce and sanguinary. They grappled each other, and like expert wrestlers, strove to inflict the fatal blow, by some sudden or adroit movement. But for some moments the parties seemed equally matched—no advantage could be gained on either side. The bees stood looking calmly on the dreadful affray, as though they themselves had been the heroes of a hundred wars. But the battle, like all others, had its close; one fell upon the field, and was immediately taken by the workers and carried out of the hive. By this time, the bees which had left, made the discovery that their queen was missing, and although they had been hived without any trouble, they came rushing back, but not in season to witness the fatal battle, and the fall of their poor slain queen, who should have gone forth with them to seek a future home.

There was evidently sore disappointment in this result, for when they realized their loss, they uttered piteous cries, and for a day or two "refused to be comforted," wandering about, apparently without object, and in great confusion.

The hive was now crowded again almost to suffocation, and after a few days' uneasiness the bees all left and lighted on an apple tree near the window, from whence they were jarred off, and the queen and a half pint of the bees returned to their old quarters, where they are to-day, Aug. 30, doing well. A small colony made in July, was now brought forward, and after sprinkling it as well as the bees from the house, with peppermint water, so that they might be all of one odor, the two strange colonies were mixed, and have continued to go on harmoniously together."

Our operations with bees, and these observations by our "better half," have been under the direction of the Rev. L. L. LANGSTROTH, of Greenfield, Mass., a gentleman of fine native talent, aided by a most thorough classical education. Prevented from preaching in consequence of the state of his health, he turned his attention to the delightful study of bees, and for more than fifteen years has pursued it with all the patience and ardor of a first love, until he probably has acquired more accurate information than any other person who has yet written of them. He has explored the subject in other languages, and in his work has brought together the most agreeable incidents and information, making it more attractive than any work of fiction.

For the New England Farmer.

WHAT AILS THE APPLE TREE?

MR. EDITOR:—I have an orchard of fifty apple trees, (with peach trees alternately) set out in 1850, and now seven years from the bud. I noticed about four weeks ago the bark was affected on some of them; since then there have been more affected the same way. It is in spots from two inches to twelve or more in length, and about an inch wide, though in a few cases, extending nearly round the tree. Where affected, the outer bark cracks off from that adjacent that is not diseased, and the spots that are diseased shrink to the tree.

I have peeled a few to discover the cause, but could arrive at no satisfactory conclusion. In one case the inner bark of last year seemed to be gone, but the wood appeared bright, and I found a small worm about three-fourths of an inch long; although the bark did not seem to have been eaten by the worm; though it would seem that it was, (I am not entomologist enough to describe him,) it was not the common borer, it was slimmer. In other cases the bark was all dead and the wood black. In one case, the tree was girdled except the width of my finger, yet was growing finely, and looks bright. I found no worms except in that one instance. Two of my neighbors have trees of the same age, affected, though not so badly.

In all three cases the bark had been washed with alkali in previous years, though not this year. The first year, I made my solution a pound of potash to two gallons of water, one-half the strength of Mr. Buckminster's wash, since then I have used it weaker every year. Last season I used soap suds. Trees in this neighborhood that have not been washed are not so affected as yet; whether the washing makes the bark more tender, I leave you to judge.

I write, thinking the subject might be of interest to you, and to see if any of your subscribers are troubled in the same way. J. W. W.

Canton, Mass., 1855.

REMARKS.—Some of our correspondents will undoubtedly be able and willing to express their views of the difficulties stated above.

☞ It has been ascertained by experiment, that a cow will drink about eighty-seven pounds of water in twenty-four hours.

For the New England Farmer.

EARLY AND DESTRUCTIVE FROST.

Mr. Editor: — On the morning of August 31, 1855, there appeared the hardest and most destructive frost that I ever knew in the month of August, although I am over 56 years of age. I have taken a little pains to look over a part of my record of the weather, and find the following account for the past twenty-two years:

FIRST FROST IN EACH YEAR, SINCE 1834.

Hard Frost, so as to kill Corn, Beans, Potato tops, Pumpkins, Tomatoes, &c. &c.

	Thermon. at sunrise.		Thermom. at sunrise.
1834.	September 30.....—	1845.	October 17.....17°
1835.	September 17.....—	1846.	October 11.....25
1836.	September 7.....28°	1847.	October 12.....23
1837.	September 14.....26	1848.	September 14.....28
1838.	September 3.....28	1849.	October 15.....23
1839.	Oct. 5 and 6...29 and 33	1850.	September 30.....27
1840.	September 23.....27	1851.	September 25.....28
1841.	October 3.....29	1852.	October 6.....27
1842.	October 7.....27	1853.	September 30.....30
1843.	September 13.....27	1854.	September 21.....26
1844.	September 28.....23	1855.	August 31.....28

Remarks.—During the whole twenty-two years there has been no frost in the month of August, in this and the neighboring towns, equal to that which appeared on the morning of Friday, Aug. 31, just past. The year 1836, nineteen years ago, the month of August came the nearest to it. In that month there were five frosts, viz: Aug. 10, 18, 21, 23 and 24; but not severe enough to do any great damage. In August, 1835, a little frost on the 4th. In 1834 none. In 1837 none. In 1838, Aug. 15, a very little in low ground. Since 1838, making sixteen years in succession, none during the months of August. And none of any consequence for eight of the sixteen years during the month of September, viz: 1839, 1841, 1842, 1845, 1846, 1847, 1849 and 1852. In those years, none in September equal to the killing one of August 31, 1855.

My cranberries have fared the worst. Not one in fifteen but what are rendered soft by being killed by the frost, and are therefore unfit to pick, unless done immediately, and made into sauce. We have done up some, and it tastes not so bad as might be expected, but not equal to fully ripe and unfrost-bitten ones. In fact, the loss to me by that frost I consider fully equal to *one-third of a crop*, to what it might be, had it kept off, till the last of September. Most of my potatoes were in the very height of growing, being planted on reclaimed swamp land, and the black potato, which grows late.

Yours, &c., Isaac Stearns.

Mansfield, Mass., Sept. 1, 1855.

For the New England Farmer.

EXPERIMENTS WITH GUANO.

Mr. P. L. O., a careful cultivator, the last spring, late in April or early in May, applied 25 pounds of Peruvian guano to *ten square rods*, or at the rate of 240 lbs. to the acre. This was upon a flat, high meadow, moist and fair soil, which had been mowed for a dozen years last past without any application of manures, or any manner of cultivation. When the crop was fairly grown, he cut from this lot 253 lbs. of good hay. From an adjoining lot of the same field, of like dimensions and character, (except the guano applied) he cut only 56 lbs.—showing an increase of more than four-fold, by reason of the application of the guano.

The field contains two acres, and he knows no reason, why a like effect could not have been produced throughout, under like treatment.

Suppose it to have been done, here would have been 8096 lbs. of hay, where there grew but 1792 lbs.—*three tons*, at least, created by the application of a fertilizing material, that cost not exceeding $20. I am no enthusiast in my admiration of fancy manures; but when I see well-attested facts like these, springing up in the natural way, I feel irresistibly impelled to state them, that others may have the benefit of the instruction. Mr. O. has made numerous other experiments, in the cultivation of crops, particularly vegetables, the details of which I hope he will give in due time, that others may profit thereby. There are so many fancy notions abroad in these days—when we get hold of reaones, we should cherish them as pearls of great value.

Truly yours, J. W. P.

South Danvers, Aug. 16, 1855.

AMERICAN WOOL IN ENGLAND.

Sometime since P. A. Browne, Esq., of Philadelphia, obtained from different parts of the U. States samples of wool, which he forwarded to the Society of Arts of London. The agent for the Commissioners of the permanent Exhibition of objects of Art and Industry, in a letter to Mr. Browne, acknowledging the receipt of them, says :—"The collection of samples of American Wools is of the *highest value and interest*, and I feel extremely obliged for your kind aid in collecting them." In a circular addressed to Ameriean wool-growers, Mr. Browne remarks:

The deposit of these specimens of fleece in this Museum, (where they can and will be examined by thousands of visitors,) I cannot help regarding as highly important to *your* interests, and the result will, I feel assured, prove creditable to this nation.

The consumption of wool in England is vast and increasing: last year the woolen manufactures of that kingdom amounted to 150,000,000 of dollars: and yet they do not *raise* one pound of wool fit for making the best broadcloths. The finest wool successfully produced in England, is from the South-Down, for the Merino is not suited to their climate. Formerly the British manufacturers depended for their supply on Spain—afterwards on Germany, and lastly upon Australia; from which latter place were brought in one year, upwards of 47 millions of pounds.

So soon as they ascertain, by inspecting these specimens, that the United States can raise wool quite as fine if not a little finer than any other country in the world, the demand will be extensive and lasting. So it was with *American cotton*, so it will be, I predict, with fine wool; and our wool-growers should prepare themselves steadily, for this great event. The agricultural disturbances, occasioned by the war in Europe, has injured German sheep breeding; and the pursuit of *gold* in Australia, has had its effect upon this portion of agricultural industry in that region, so that Great Britian will naturally turn her thoughts to this extensive Continent; where sheep may be raised, almost to any extent that can be contemplated. The farmers of the United States have only to be careful to form their flocks from the *best breeds*, and to keep them *pure—no crossing of species*,—and they will garner a golden harvest.—*Country Gentleman.*

For the New England Farmer.

DRAINING, &c.

MR. EDITOR:—One of the most difficult matters in carrying forward improvements in agriculture, is to maintain a correct system of teaching and practice. This fact is very evident to the observing man, when he sees so many different theories set forth as guides to go by. Many of these theories are absolutely false, when reduced to practice, while others are of such doubtful utility that they will not pay the farmer for trial or investigation.

Among other theories which have of late sprung up, are those in regard to "draining," which are maintained by a certain class of "scientific operators" as correct teaching. They say in substance, as there is a great deal of wet and marshy, boggy land, that requires thorough draining, before it can be well cultivated, so there is no soil, however deep it may be, but that it will pay well to "drain," if it will pay to cultivate at all. I hesitate not to say that a greater piece of "radicalism" or untruth, was never put forth, than to assert that a piece of naturally dry soil required draining in order to make it right for cultivation.

A writer in the *New York Tribune*, in a word of advice to farmers, among other things says:—"But there is no land in the old States worth plowing, which will not pay for draining and subsoiling. Dry soils need these meliorations quite as much as wet, and will as richly reward them. There is no tolerably good land in this State, so dry that it might not, by underdraining and deep plowing, have been made to stand the drought of the past summer, without rolling a single blade of corn. Proper draining moistens land when too dry, as much as it dries it when too wet. These facts are well known to the decently instructed farmer, and we need not dwell on them," &c.

Now this writer seems to carry the idea that draining and subsoiling must always go together, in order to ensure success. And I admit that in all wet, heavy, swampy lands, that need thorough draining, subsoiling will be a valuable addition. But then that does not prove that all ordinary dry soils need draining, nor anything of the kind, for they do not want it. All soils capable of cultivation may or will be improved by deep plowing and subsoiling; lands that are naturally moist and retentive, may need a subsoiling every year; while those which are more open, one thorough subsoiling may answer for three or four years. In fact, on many soils that are quite retentive of moisture, all the *draining* that will be necessary can be done by deep plowing and thorough subsoiling, say to the depth of eighteen or twenty inches. This operation opens the pores of the soil, and drains down the surface water that may accumulate by heavy rains, and also the retentive water that lies near the surface, of course leaving the soil in a pliable state for cultivation. Then in case of dry weather, moisture will be drawn up from the subsoil by attraction from the atmosphere. So if the surface soil is well pulverized, this soil may be kept tolerably moist during a dry spell. Of course, on all wet, boggy, marshy swales or soils, thorough draining is necessary before any other improvement can follow. There are many other soils, which on first appearance would look as though draining was not necessary. But on a closer examination of the soil and subsoil, and the grass grown upon the surface, draining would be found to pay well.

As to the material used for draining, much will depend on circumstances, situation, &c. &c. I am inclined to think that the tile now manufactured in many places for this purpose, is the cheapest and best material that can be used, even if stone are close at hand. Draining by tile is the most sure and certain process, in the long run, and the cheapest. But then this writer says, "proper draining moistens land when too dry, as much as it dries it when too wet," &c. Now I confess, for one, that I do not understand this doctrine, although I have given considerable attention to soil cultivation for the past twenty years. As I understand it, draining proper means conducting off the surplus water and moisture gathered from the soil, and discharging it into a main ditch or reservoir. Now I cannot see why in dry weather even that the tile will not continue to gather the moisture and conduct it off; and in that case, a dry soil drained, instead of becoming more moist in dry weather, must be exhausted of moisture. But I can readily see, as I have explained, how by deep plowing and subsoiling, and keeping the surface soil mellow and stirred often, that a tolerably moist or dry soil may be relieved of surface water in wet weather, and made more moist in dry weather. As to having soils so thoroughly plowed, subsoiled and drained that a single blade of corn will not "roll up" in a great drought, I have heard spoken of before, but I had much rather see it, than hear it told of, for my satisfaction. On many soils of a deep loam that are highly cultivated, a crop of corn might be carried through a great drought, like the one just past, without the blades rolling much. But on a dry gravel or sandy soil this would be impossible, and all the subsoiling and draining could not prevent corn blades from rolling. It has been a long observation of mine, and of others, that during a drought, when corn blades rolled during the day and unrolled during the night, the crop did not suffer much. But when the blades rolled thoroughly through the day, and did not unroll at all during the night, then the crop suffered for want of moisture. The Indian corn crop will stand a great drought, when the soil is well cultivated, many times beyond our calculation. But then this bidding defiance to rain and dry weather, and saying as good crops can be raised by *scientific culture*, without these blessings, as with, is going beyond limit. And after all the care and attention that the farmer may bestow on his crops by well-directed labor, he may have his expectations cut off by drought, storm or flood. Yet good cultivation will generally succeed, when well followed out, and it is only the extremes and exceptions to this rule that will fail to ensure generally good crops.

Yours truly, L. DURAND.

Derby, Ct., 1855.

STARCH, SUGAR, CARBON.—Twelve pounds of starch contain five pounds of carbon. A person of sedentary habits throws off about five ounces of carbon in twenty-four hours—a hard laborer twelve. To supply this he must eat sixteen ounces of starch and sugar. If he take it in the form of wheat bread, it will require one pound and three-fourths—if in the form of potatoes, seven and a half pounds, to supply what is lost by breathing alone. A horse, or cow, will give off from four to six pounds of carbon daily. The amount of food, to supply this loss, will be proportionately greater.

For the New England Farmer.

FARM WAGES AND LABOR.

Mr. Editor: — An article appeared in the *Farmer* of August 25th, over the signature of "E. N.," the writer of which seems to think wages for farm labor are not high enough yet, compared with other branches of labor. He does not mention the fact that before the mechanic can command $1,50 or $2 per diem, he must give some time in learning his trade, and then invest some capital in a set of mechanic's tools. Here wages on the farm range from $12 to $18 per month, for the term of six or eight months, or $150 to $175 by the year. Now it is not difficult to show that the laborer receives a greater net profit at the end of the year, than his employer, with from two to four thousand dollars invested in his farm. The farmer who clears from one to three hundred dollars annually, we think doing well, even if he is obliged to expend that sum on his buildings or fences, that they may not be running down.

How is it with the laborer who clears from $125 to $150 per year? "Figures don't lie;" therefore by adding in six per cent., he will in a few years lay by a sum sufficient to purchase a small farm, and thus have an interest in the soil he cultivates—a situation to be preferred to any promotion he might hope for, from any manufacturing company. This writer says, "There is so much exposure in farming, that young men who commence at the age of twenty-one without any property, and with the intention of getting a living by working on a farm, and who have an average fortune, usually end a short life as poor as they began it." A most awful picture, truly. That the most healthy occupation that God ever designed for man should shorten human life, is a new idea. Any young man who begins for himself at the age of twenty-one, with habits of industry and economy—two words the import of which is not instilled in the minds of our young men, as in the days of Dr. Franklin—can for $12 per month through the year, clear one hundred dollars; this sum received annually, and prudently managed, will at the age of forty make him as independent as was Stephen Girard, with his millions.

Maidstown, Vt., Aug. 28, 1855. W.

ASHES AND PLASTER.

A subscriber says:—"I wish to know if there is anything in the nature of ashes or plaster, that causes them to neutralize each other, when used together? My neighbor says, he knows it is so, and that I shall lose my money and my labor."

Remarks.—Plaster is sulphate of lime. In the state of ground plaster, as generally used in this country, it consists of 28 lbs. of lime to 40 lbs. of sulphuric acid, and 18 lbs. of water.

Ashes are made up largely of silicates, mostly insoluble. They contain also carbonates of the alkalis, potash and soda, and of the alkaline earths, lime and magnesia, together with a little of various phosphates, a little sulphate of lime (plaster), a little soluble silica, and small portions of free alkali.

In answer to the above question, science would say: "No; the two cannot neutralize each other; no decomposition will be effected by mingling them in the soil; and so far as the free alkali of the ashes might tend to dissipate the ammonia of the soil, the plaster would counteract that tendency, and so the effect of mixing them would be beneficial rather than otherwise."

If we propound the same question to practical farmers, we get contradictory answers. One says he gets good results from both ashes and plaster applied separately, but not equally good, if they are mixed. Another says, it is less labor to apply them together, and the results are quite as good. Both *know* that they are right; and the scientific man would be apt to think he *knows* that the last only is right. We incline strongly to the opinion that ashes and plaster may be used *together* with no injury to each other, but with perhaps some little advantage over their *separate* use; though it must be confessed that there are strong testimonies to the contrary coming from practical farmers.

Let the experiment be thoroughly tried. On part of a field apply the ashes and plaster in the hill before planting. On another part, the soil being the same and similarly treated in other respects, let the ashes be applied in the hill at planting, and the plaster be applied after the first hoeing. If the ground were peculiarly warm, it might be well to try a third portion by sowing the ashes broadcast, and applying the plaster to the hill. Our expectation would be that little or no difference would appear, except that where the ashes were sown broadcast, the crop might not be quite as forward early in the season, but later would quite equal the other.

We are the farthest possible from wishing that the practical farmer should bow to the opinions of any one. If agricultural writers and agricultural workers will maintain a little wholesome watchfulness and a great deal of kindly respect for each other, the best interests of agriculture will be advanced.—*Nash's Farmer.*

For the New England Farmer.

FARMERS' DISADVANTAGES.

Mr. Brown:—I do not wish to intrude upon the columns of your valuable journal; however, as you are always willing to hear from the young and inexperienced, and as you are frequently describing the peculiar advantages of the farmer, and the means which he possesses for enjoyment, I think that a few words upon the disadvantages of a farmer's life would not come amiss. I refer to the obstacles against which a poor "farm boy" has to contend, in acquiring an education. The farmer in comfortable circumstances can give his sons a liberal education. But the boy who is "put out," or who works by the month, is obliged to labor fourteen or sixteen hours per diem, during the summer, and he can have but little time or disposition to acquire information. Moreover, farming has this disadvantage, it is a very unsociable employment, and when the boy has any leisure, he very naturally devotes it to finding company with which he can associate.

And when winter, the time for study, comes, the case is not much better. If he does chores for his board, he is obliged to rise very early, and labor besides until school-time, and frequently later, and getting late to school is a very discouraging thing for an ambitious boy, and the transition from vigorous exercise in the keen winter atmosphere to the uncomfortable, poorly-ventilated school-house, is so sudden, that his head aches, a feeling of lassi-

tude creeps over him, and he is unable to study; therefore, he is called inattentive, a dull scholar, gets discouraged, and after passing through the three winter months, he goes to work, and before winter commences again, he has forgot nearly all that he learned the previous season. Continuing thus from year to year, the boy becomes a man used to hard labor, but possessing little information, and as is usually the case, lives and dies a common laborer.

Now, I will admit, that the pursuit of agriculture is the most honorable and useful employment in which a person can engage, and every nation which has encouraged the cultivation of the soil, and the employment of independent labor, has increased in wealth and strength, while the use of ignorant and slave labor is most pernicious in its effects upon the prosperity of a nation. Yet I think that the opportunities which agriculture affords for the acquirement of an education are rather of a negative order.

South Hadley, July, 1855. E. N.

REMARKS.—There are difficulties to be overcome by the "farmer boy," in the pursuit of knowledge, we confess, but that they are of a sterner character than those the mechanic or merchant's boy must contend with, is not clear. To a determined mind, the common difficulties of life operate only as a kind of spur, while the timid and doubting yield to them, and thus lose the prize to which they aspired. Upward, and Onward, must be the words for young men. *Make* circumstances yield to your strong will, and bend or break the hindrances which obstruct your path. What man *has* done, you can do. Never doubt. Keep a trusting, resolute heart and go on your way—you will succeed.

MANURE.

NICOLAI, in his work entitled "Principles for the Regulation of Estates," asserts that—

One ox or cow yields ten wagon loads, (for two horses,) of manure;

One young ox or cow, five loads;

One horse, fed or stabled, fifteen loads;

One horse, turned out to grass, seven and a half loads;

One sheep, one load.

He also observes that one-half the quantity of manure obtained from the horned beasts, may be derived from the pigs, poultry and farm-yard, provided that proper care be taken to keep the former well provided with straw and other litter capable of being resolved into manure. Twenty of these loads he supposes amply sufficient for an acre—that is, of the cattle; twenty-five loads of the mixed manure obtained from the farm-yard, and fifteen loads from the sheep-cote or yard.

KARLE estimates the quantity of manure furnished by sixty-five cows, turned out to pasture all day, and brought up at night to the cow-house, during summer, sufficient to manure one hundred acres.

PFAFFER asserts that one cow, stable-fed, will produce one hundred quintals of manure; and an ox, put up to fatten, eighty quintals.

READING IN THE CARS.

Railroads have wonderfully changed the business and ways of the world. Cities were once places of residence, and merchants thought they must domiciliate within a moment's call of their ships and banks and counting-rooms, or trade would languish and die. But steam and iron roads have proved that ships will sail and banks discount, if the merchant sleeps in the country, away from the din of rattling wheels, and the mephitic vapors of gorged gutters and sewers. But it is not the merchant alone who has forsaken the city; mechanics, artists lawyers, clergymen and editors, not only find the country congenial, but less expensive than the city, as a place of residence, including the cost of transportation over the road twice or more each day.

But to spend twenty minutes or an hour, morning and evening, in the cars, and to take a choice of conversing amid the screams of the steam whistle, and the clattering of the wheels, or to be left alone to one's thoughts, presented a dilemma, the horns of which were either of them too sharp for Yankee impatience to hang upon. So the merchant pulled out his "price current," and studied that, the lawyer his "brief," and clinched the points of that, the clergyman his "suggestions for every day in the year," and the editor his "exchanges," and thus made all the time count as so much *devoted to business*. Now, the newsboy comes with the morning and evening papers, and follows on with "Harper," "Putnam," and "The Lamplighter," as regularly as the trips of the cars themselves. We are determined not to be left alone—it is pleasanter to read than *to think*—so we hurry on, leaving the "inward digestion" for a "more convenient season," and the mind to become lazy, laggish and unprofitable.

Reading in the cars, however, will have another, and most painful influence upon the *physical* system. We had several times been cautioned against reading in the cars, but a bag full of "exchanges" has proved too strong a temptation to resist, and for several years it has been our practice to read from two or three to twenty or thirty papers while passing over a distance of twenty miles. But during the spring and early part of summer we invariably returned home with a painful sensation in and about the eyes, though feeling nothing of it on taking the cars at Boston. This pain at length became permanent, sometimes violent, and so great as to prevent us from reading, and generally from writing, though the sight was not impaired. Upon consultation with an oculist, he stated that the optic nerve had become weakened by overtasking it, and inquired if we were not in the habit of *reading in the cars!* Under an interdiction from reading and writing, the eyes have rapidly improved, and we can now read half an hour at a sitting, under favorable circumstances.

The most unpleasant and painful sensations of our

experience have been after retiring at night. The whole eye would then seem to be oscillating, and accompanied by severe pain at each motion.

Since being thus deprived of the use of the eyes, several persons have stated to us a similar experience in themselves, and arising from the same cause. We are also informed that an expressman, who had for many years been passing back and forth between Boston and one of the neighboring towns, and who was in the constant habit of reading in the cars, has become totally blind, and the cause is imputed to that fact. In reading, the eye not only takes in the word, but *each letter* of the word, and their formation upon the retina of the eye must be exceedingly complicated and difficult under such conflicting motions as are caused by a rapidly-moving train of cars. Perhaps the communication of these facts may save a good pair of eyes.

DAYS WITHOUT NIGHTS.

There is nothing that strikes a stranger more forcibly when he visits Sweden at the season of the year when the days are longest, than the absence of the night. We arrived at Stockholm from Gottenburg, 400 miles distant, in the morning, and in the afternoon went to see some friends—had not taken note of time—and returned about midnight; it was as light as it is here half an hour before sundown. You could see distinctly. But all was quiet in the street. It seemed as if the inhabitants were gone away, or were dead. No signs of life—stores closed.

The sun goes down at Stockholm a little before ten o'clock. There is great illumination all night, as the sun passes round the earth towards the north pole, the refraction of its rays is such that you may see to read at midnight. Dr. Baird read a letter in the forest near Stockholm at midnight, without artificial light. There is a mountain at the Bothnia, where, on the 21st of June the sun does not go down at all. Travellers go there to see it. A steamboat goes up from Stockholm for the purpose of carrying those who are curious to witness the phenomenon. It occurs only one night. The sun goes down to the horizon, you can see the whole face of it, and in five minutes it begins to rise.

Birds and animals take their accustomed rest at the usual hours. The hens take to the trees about 7 o'clock, P. M., and stay there until the sun is well up in the morning, and the people get into the habit of rising late, too.

A Martial Buffoon.—There is often a buffoon attached to each Russian company, who amuses his comrades by his jests and antics, and is generally a great favorite. On one occasion in the Caucasus, when the troops were driven back by the Circassians, the buffoon was wounded and left behind. A favorite jest of his had been to crow like a cock; and as he lay on the ground he thought of the only way to save himself, and crowed. This had such an effect on his comrades that they rallied, charged again and saved him.

OUTLINE OF THE MELON APPLE.

The *Horticulturist* for September, 1854, gives a glowing account of this apple, the editor stating that he once carried some of them to Europe and presented Mr. Rivers, who pronounced them "the most tender and delicious apples he had ever tasted." This apple originated, with the Northern Spy, in the garden of Mr. Chapin, of East Bloomfield, Ontario County, N. Y. From what we can learn of it, we judge that it is too tender to bear long carriage or much handling, and the tree scarcely vigorous enough in its growth to be recommended for *profitable* culture, but is worthy a place in every orchard or garden, for family use. The editor of the *Prairie Farmer* thinks it excels the Northern Spy, in taste, but says nothing of its qualities as a market fruit.

Inquiry—What do they do with the Dirt?—"E. E." contributes the following:—A farmer called the other day. My little niece wanted to show him the kittens, and he told her he had a plenty at home, and went on to tell an incident relating to the necessity of keeping them, which was briefly this: A ground squirrel, *sciurus striatus*, or "chipmuck," as he called it, had been making depredations upon his corn, when one day he discovered, a few feet from his corn-barn, a squirrel's hole, which he dug out about four feet deep, and came to corn, which he threw out to the fowls what he judged to be half a bushel, and then gathered up a half-bushel more, heaped up. The mystery was, how Sir Hackee could make an excavation to contain a bushel or corn, and leave no traces of the dirt. Some suggest that they eat it; others again that they carry it to a great distance, and scatter it here and there and everywhere. Can the *Country Gentleman*, or any of his family, give any satisfactory explanation of it.—*Country Gentleman.*

Agricultural College in Michigan.—The land upon which the college is to be erected has been purchased—lying about three miles from the Capitol at Lansing—at $15 per acre. The land is of various quality, and is said to be well adapted to the purposes of the institution, comprising about 600 acres.

U. S. AGRICULTURAL FAIR.

Everything is going on to render this Exhibition the grandest and most attractive that has ever taken place in this country. It will come after all the other State and County Fairs have taken place, so that the stock, implements, &c., that have been exhibited at these, may be brought here. The *Journal* says, in regard to this show, the ground to be occupied in October next, for the grand exhibition by the United States Agricultural Society in this city, is on the city lands at the South End, bordering on Harrison Avenue on the north, Brookline Street on the east, and on the south and west by the water, covering an area of some fifty acres. About one hundred horse-carts and between four and five hundred laborers are actively employed in levelling this extensive lot, and a host of carpenters are engaged in preparing the wood wook for fencing, seats, &c.

The *Ohio Farmer* says:—

"Well, we are to have another National Stock Fair. We are glad of it. Boston has taken hold of it in earnest. Mr. Wilder writes us:—'It may be well for you to know that the subscription of $20-000 I have raised in about *six hours*, no one person putting down less than $500. The occasion will be one of great interest, and no pains will be spared to make it worthy of the city in which it is held, and of the nation which the Society represents.' That's the talk, and the performance will be equal to the promise. Col. Wilder never does anything by halves, but with the munificence of an emperor. Now let the Ohians, Kentuckians, Illinoans and Indianians, prepare their best cattle for this National Show, and let us have a grand Jubilee. All the State Fairs will be over, and the gorgeous Indian summer weather will be just the time to visit New England."

Agriculture the Proper Calling.—A most sensible writer in the *Country Gentleman* says:—

All other pursuits are proper in their places, but when carried to too great an extent, produce poverty, distress, and misery. The more agriculture is pursued, the greater is the benefit to the human race. Here is a field for the philanthropist. Establish agriculture upon a good basis—the basis of intelligence—and you will do much to close what are now flood-gates of misery to society. Our city poor, our merchant clerks, our emigrant poor, and our country poor, all call for relief; and here alone can it be obtained,—in intelligent husbandry. Agriculture is the great moving power of human existence, and as the human family increases, we must cling the closer to our mother earth for support. Thus the mandate "to earn our bread by the sweat of our brow," becomes from our condition a matter of necessity; but in it we see the goodness and wisdom of our great law-giver, for "necessity is the mother of contrivance," we thus increase in intelligence, and intelligence promotes morality and happiness. In the dim but yet brightening future, we behold, instead of cities overcrowded with human life and ragged pauperism stalking abroad, the whole face of nature one great Eden,—the sons of Adam all inheriting his estate. Agriculture exerts an influence to equalize the distribution of wealth, which no law, nor theory, nor any other pursuit, has or ever can accomplish.

HOW TO PREVENT AND CURE KICKING COWS.

An "Old Farmer" writes thus to "*Life Illustrated:*"

In most cases the habit of kicking is contracted during the first month after the cow has had her first calf. If, as is often the case with well-fed heifers, the udder is a little feverish at the time, it often becomes so sore that it is impossible for the poor creature to stand still while the necessary milking is being done. Following the instinct of nature, she kicks; and finding she is thus for the moment freed from pain, continues to do it till the *anger of the milker* is aroused, and then a bad matter is made much worse.

It is better in the first place to tie the heifer by the head, then set your left shoulder gently but firmly against her, just back of her right shoulder, grasp firmly her right fore leg below the knee, turning her foot up backward till it touches the leg, then slip on over the knee a strap, or hoop, or cord that will confine it fast in that position. While standing on three legs she will find it difficult to kick so as to hurt you. Now take a convenient sized cloth, and wet and wash the udder thoroughly with tepid or cold water, after which milk her as carefully and tenderly as possible, using at the same time such gentle and soothing language as is calculated to show her that you do not wish to hurt her—but let her struggles be ever so violent or provoking, mind you keep control of your own temper. An outbreak on your part will as certainly be productive of a bad effect upon the cow, as an echo will answer your own voice, or as your image will be reflected in a mirror. Kindness, combined with the perfect control you have over her in this situation, I consider much the best way of breaking them; and after a few times she will lift her foot to be tied as readily as a horse will be shod. Continue to milk her in this way until the soreness is gone, and she will find it a gratification to be milked, will often meet you as she sees you coming with the pail, and you will ever after find it easier to get along with her should her teats by chance get sore afterward.

Flour in New Hampshire.—For several years past the Eastern States have depended almost entirely upon the West for their flour; but this year they undertook to raise their own, and with very gratifying success. An old farmer, who has recently travelled extensively in Sullivan and Grafton counties, assures us that he never saw such crops of wheat in New Hampshire. We hear similar reports from other quarters, and have seen some beautiful fields ourselves. It may be thought, perhaps, that all the wheat New Hampshire can raise will not affect the market price of flour; but when it is considered that for five years past it has produced next to none, while this year it will supply half its population, the effect must be felt; and if the other New England States have done as well, the aggregate influence upon prices must be quite perceptible. Flour must come down, as soon as the new crop is fully available.—*Manchester Democrat.*

For the New England Farmer.

CHEMISTRY—No. 2.

TRANSFORMATION.

As every species of growth and decay consists in the passage of water from one state to another, it may not be amiss to glance at some of these changes, as they present themselves to the student of nature. "All organized substances are composed mainly of but four elements, viz., carbon, hydrogen, oxygen and nitrogen."—*Youmans.* These, acted upon by different agents, and under different circumstances, go to make up, in the main, the sum total of the animal and vegetable world.

But let us look at vegetable growth. Every perfect seed possesses in itself the rudiments of a new plant. "In some varieties it is so complete that the microscope reveals its structure, root, stem and leaves."—*Youmans.*

Encased in its coating, it awaits the action of external agents, viz., warmth, air and moisture. When exposed to these, it awakes to life, absorbs water and oxygen, swells in bulk, chemical action begins, carbonic acid is given off, its temperature rises, and a new substance, (a kind of ferment,) is formed, which possesses the power of changing starch into sugar or gum, thus supplying the necessities of the young plant. As soon as the germ appears, it first takes root, and then the blade appears, and it begins to provide for itself. Food in a liquid form is taken up by the roots, and is, by capillary attraction, carried to the extreme of every branch and leaf, there undergoing the change necessary to fit it for food, for the growing plant, by being mixed with carbonic acid absorbed from the air. And let it ever be remembered that the LEAF *is the seat of this important change.* The leaf is an organ of inhalation, digestion and respiration. Hales found that a sunflower, weighing three pounds, exhaled thirty ounces of water in a day. The pores are situated upon the under side of the leaf, and are valve-like in their actions, opening when the supply of water is abundant, and closing when it is small. "They vary in size, on different kinds; upon the apple leaf it is said there are 24,000 to the square inch."—*Gray.* Oxygen is returned to the air by plants, while they retain the carbon, thus purifying the air; for men and animals take oxygen from the air, and return carbonic acid, while plants take carbonic acid and return oxygen; thus acting in unison, keeping the air in nearly the same state. "An adult man exhales about 140 gallons of this gas per day."—*Davy.*

The wind, too, plays, its part in this grand drama of nature, by keeping the air in never-ceasing motion. But the most wonderful part of all this complicated machinery, is the sun. He is the engine, so to speak, that moves the whole. Nothing could come to maturity, without the light and heat of the king of day. How truly wonderful, that a few gases mingled with a very small proportion of mineral elements, should compose all the varied form of life, vegetable and animal, that we see in our ever-changing world. But so it is, and these changes are, to my mind at least, a very appropriate theme of study.

S. TENNEY.

West Poland, Me., Aug., 1855.

GREAT YIELD OF RYE.—The Salem *Observer* has a specimen of rye raised this season upon the town farm of South Danvers, on a piece of land of ordinary gravelly soil, measuring seven acres and one hundred and twenty rods, which yielded two hundred and twenty-nine and a half bushels. It weighed fifty-six pounds to the bushel. One hundred and fifty bushels of it were sold for $1,50 a bushel.

For the New England Farmer.

LIME AND CANKER WORMS.

MR. EDITOR:—As no answer has appeared in your paper, to the inquiry of "Verdant Farmer," in relation to a remedy for the grubs, which are destroying whole fields of corn, &c., in his vicinity, I take the liberty of requesting you to insert, for the benefit of your numerous readers, the following article taken from the *Evening Transcript*, giving an account of a remedy which has been very successful in destroying the canker worm, and which will be found equally efficacious for the destruction of grubs and worms of all kinds.

Most respectfully yours, &c.

Charlestown, Aug. 13th, 1855. G. J. F.

MURIATE OF LIME AND CANKER WORMS.—*Mr. Editor:*—The ravages of the canker worm for the last few years have been to me a subject of deep interest and inquiry, and I have devised many schemes for the destruction of this rapidly increasing pest. While a resident of Cambridge, the experiments above alluded to were tried; but my removal to Lexington put a stop for the time being to all further investigations, and I cannot judge how far either or any of them would have succeeded. The canker worms had not as then reached Lexington, or that part of it in which I resided, and I really hoped, that, as far as I was concerned, I had seen the last of them; but judge my horror, Mr. Editor, when visiting my *next* neighbor's garden, to find his apple trees, which by the way had been purchased that spring from a nursery in Cambridge, *covered* with my old enemies. They were even now going into their winter quarters, preparatory to a vigorous campaign in the coming spring.

It so happened that during that season I had been making some experiments with muriate of lime, which my most esteemed friend, Mr. James Gould, the manufacturer, had recommended to my notice as a fertilizer. As a manure, the muriate exceeded my most sanguine expectations; and the thought struck me while thus using it, why will it not answer the double purpose of fertilizing the ground and destroying the canker worms? By my direction therefore, the ground, to the extent of the branches under the trees in question, was *well* covered with this muriate of lime; late in the fall it was dug thoroughly in. The next season, not a canker worm was to be found. The experiment had fully succeeded. Now is the time, Mr. Editor, for your readers to try the thing for themselves. I do not ask them to put faith in my experiment alone, for I am happy to add, that the same thing has been since tried, both in England and in this country, and in every case with perfect success.

The canker worms have now mostly gone into the ground, and *now*, therefore, is the time to destroy them. The experiment is well worth trying, for as a fertilizer alone, the muriate will pay three times its cost. I shall give my plum trees the same dose, and have no doubt but there too it will do its work.

Yours truly, WILLIAM PLUMER.

Lexington, June 21, 1855.

For the New England Farmer.

A NEW BUILDING MATERIAL.

We have just been shown a new building material, which promises, from its exceeding cheapness, beauty and apparent durability, to supplant entirely the use of stone, brick or wood.

This article is the invention of Mr. AMBROSE FOSTER, of Portland, Wis., and by him patented. It may properly be termed *artificial sand-stone*, being composed of eleven parts common sand to one part dry slaked lime, which being thoroughly mingled together, without the use of water, and subjected to a pressure of a hundred tons to the square foot (a pressure readily obtained by machinery) produces a beautiful stone, with polished surfaces, which exposure to the atmosphere hardens, and soon it becomes equal to granite for strength and solidity, only becoming harder and more stone-like by the action of the weather. These blocks may be made of any desired size and shape, from that of the common brick to a foot square, or may be formed triangular for corners of buildings, or curved for chimneys and other purposes. Each block is pressed with a space for dead air, thereby rendering all walls made by them, both dry and warm. No lathing or plastering is needed, the walls being perfectly smooth on either side, upon which paint or paper may be laid, and present a better appearance than when laid upon plastering.

The press in which this material is to be manufactured, will be so small and light that it may readily be taken to any spot where it is desired to erect a building—bringing the sand from the nearest bank, and the lime from the nearest kiln, and making any quantity of blocks desired, thus saving the expense of handling and carting.

This article has been subjected to the severest tests and examinations by the most thorough, scientific and practical men, chemists and architects of New York city, and elsewhere, and pronounced by them to be a perfectly safe and most valuable substitute for stone and brick.

Of the *cheapness* of the material, none can doubt when they remember how abundant sand is everywhere, and lime almost equally so. Of its durability and capability of resisting all external influences, there seems no doubt; this, however, will be further determined by unerring experiments; which if successful, will render it one of the greatest inventions of the age.

Any information in regard to this article can be had from Messrs. J. H. Buck & Co., of Lebanon, N. H., who are the manufacturers of the presses for making it; which we understand they will soon be in readiness to send to any part of the United States. They are also agents for the sale of patent rights for the States of Maine, New Hampshire, Vermont and Massachusetts.

We can hardly conceive of a better boon to mankind, in a temporal view, than the discovery of a very cheap and inexhaustible material for constructing their buildings, their houses, their homes; the possession of which gives to life its chiefest pleasure and sweetest enjoyment. *A home for all*—that is a home in its most thrilling acceptation, and vice and crime will have few devotees. F. I.

Lebanon, N. H., 1855.

REMARKS.—Please send us a specimen of the manufactured material.

IMPROVEMENTS.

The investment of capital in permanent improvements, is much more common in England than in this country. In the *Mark-Lane Express* of April 10th, there is a report of a speech by Mr. Mechi of Tiptree Hall, in which that gentleman is represented to have said, that he had, on a farm of one hundred and seventy acres, nearly or quite two miles of iron pipe, for the distribution of liquid manures. The apparatus for applying this manure, including a steam-engine, tanks, iron pipes and gutta percha hose, cost him about twenty-one dollars per acre. This investment he considers a profitable one—yielding him larger returns than the same amount of capital invested in public funds. He considers the application of liquid manure to lands of all description, much more economical than that of the solid excrements of animals. By this process of manurial irrigation, the excreta of the animals produced to-day, were conveyed into the tanks to-morrow, conveyed immediately to the land, and the soil saturated with it to the depth required; whereas, when the solid matters were applied, the cost of transportation, spreading, etc., not only proved a matter of considerable expense, but there was also much time lost, oftentimes, in waiting for rain to wash the fertilizing particles into the soil, and then when it came, the quantity was not sufficient to carry them to the required depth. The actual cost of applying the urine and other liquid matters made in his establishments—an equal distribution over all his fields being secured—did not exceed three cents per ton! His estimate of the actual augmentation of produce, in consequence of this irrigating process, is that it amounts to more than double the outlay—or about *one hundred per cent.* Now why is it that our farmers who are by no means deficient in enterprise in other matters, do not imitate their English friends in this great matter? Why do they, in view of such facts and examples as these set before them in the speech of Mr. Mechi, still blindly persist in suffering the annual waste of the most valuable portions of their manure, and this, too, while they are actually stunning us with their dolorous and ceaseless complaints against short crops and exhausted soils. Farmers should reflect upon this subject. It is one of the very first importance, and we trust will no longer be treated with neglect.

A FACT IN MANURING.—A person carrying some orange trees from China to the Prince of Wales island, when they had many hundred fruit on them, expected a good crop the next year, but was utterly disappointed: they produced but few. A Chinese, settled in the island, told him if he would have his trees bear, he must treat them as they were accustomed to in China; and he described the following process for providing manure—"A cistern, so lined and covered as to be air-tight, is half-filled with animal matter, and to prevent bursting from

the generation of air, a valve is fixed, which gives way with some difficulty, and lets no more gas escape than is necessary: the longer the manure is kept the better, till four years, when it is in perfection; it is taken out in the consistence nearly of jelly, and a small portion buried at the root of every orange tree—the result being an uncommonly great yield." A person hearing of the above fact, and wishing to abridge the term of the preparation, thought that boiling animals to a jelly might have a similar if not so strong an effect. Accordingly, he boiled several puppies, and applied the jelly to the roots of a sterile fig-tree; the benefit was very great —the tree from that time for several years bearing in profusion. Hints of this kind are well worth preserving, for though an English farmer may neither have the apparatus of the Chinese, nor puppies enough to become an object of attention, yet the reduction of manure to a mucilaginous state ought perhaps to be carried further than it is.

CHEMICAL COMBINATIONS.

Every farmer should know enough of chemistry, to tell the combination that forms the different vegetable creations. Every plant and vegetable is formed of the same substances, only united in different proportions. All, too, are formed of only *fifteen* elements. The names of these elements we have often given; but as a valued subscriber has asked us, "What is the best way for a farmer of limited means to acquire a knowledge of Agricultural chemistry?" we will repeat what we have often said, by recurring to the first principles of chemistry; and if our "subscriber," of Sullivan, will learn this lesson fully, he will be prepared to be his own teacher afterward, by experimental training.

The *fifteen* simple elements are oxygen, hydrogen, nitrogen, chlorine, carbon, potash, soda, lime, alumina, magesia, iron, manganese, silex, sulphur, and phosphorus.

Some of these names may be better understood by calling them differently. Thus, to call chlorine, muriatic acid; carbon, coal, or the part of a thing that will burn; alumina, clay; and silex, sand—they will, perhaps, be better understood. The other substances are probably understood by their chemical names.

Now, by different combinations of these substances, are all other substances formed. Thus, oxygen and nitrogen form the air we breathe; nitrogen and hydrogen combined form ammonia, or hartshorn; chlorine and ammonia combined form sal ammoniac; oxygen and sulphur form sulphuric acid; sulphuric acid and soda form glauber salts; sulphuric acid and magnesia combined form epsom salts; sulphuric acid and alumina, or clay, form alum; sulphuric acid and iron combined form green vitriol; sulphuric acid and zinc combined form white vitriol; sulphuric acid and lime combined form "plaster of Paris;" oxygen and phosphorus combined form phosphoric acid; phosphoric acid and lime combined form bones, or phosphate of lime; oxygen and carbon combined form carbonic acid, (so fatal in rooms where burning coals are kept;) carbonic acid and lime united form chalk, and limestone, called carbonate of lime; potash and aquafortis combined form saltpetre; soda and chlorine combined form common salt. Potash, soda and ammonia are called alkalis, as they possess a sharp, burning taste. Potash is derived from the ashes of land vegetables; soda from sea plants, and ammonia from animal substances.

Now, by these changes and combinations, all plants and vegetables, as well as animals, are formed. Thus, a stick of green wood is formed by the combination of oxygen and hydrogen; the sap, or water, carbon, or coal; and the ashes, or earthly matter, are drawn from the earth. By burning it, the water is changed back into the two gases, and thrown off into the atmosphere. You have the coal, or carbon left. This, though apparently dry, still contains water in the shape of oxygen and hydrogen disunited, and in a solid dry form. Burn the carbon, or coal, and the balance of the oxygen and hydrogen is driven off, and the remains are earth. Analyse these ashes, and we shall find all of the fifteen elements, except the gasses, which have escaped into the atmosphere. To ascertain the amount of gas in a stick of wood, weigh the stick, then char it in a pit, and weigh again; then reduce it to ashes, and weigh then. In the first operation, you get the weight of the gases united in the sap, which are thrown off; in the second, the weight of the gases uncombined, existing in a solid state. So in lime, which, united with carbonic acid, forms limestone. A bushel of limestone weighs 142 lbs.; burn it, and it weighs only 75 lbs., showing that 97 lbs. of carbonic acid and water have been thrown off; add 20 lbs. of water to it, and it will crumble into a *dry* powder, weighing 93 lbs., showing that the change of 20 lbs of water into solid, dry substances, has been effected with a loss of only 2 lbs.

In analyzing the ashes of wood, we find what earth is used in forming the plant, or tree. The apple tree shows a large proportion of alkali and lime; the peach, iron; potatoes, potash; wheat, phosphate of lime; clover, lime; and the cranberry, of potash.

When the farmer has got thus far, perfectly, he knows what composes his crops, and that his apple trees need ashes; the peach, iron scales; potatoes, leached ashes; wheat, bone meal; and clover, lime. When he has completely learned this lesson, we will, perhaps, give him another.—*Ohio Farmer.*

BREAKING STEERS.

In breaking a pair of steers, first confine one of them in a yard 14 to 18 feet square, high and strong enough to hold him; then enter the pen with a switch three or four feet long, and with your pockets filled, not "with rocks," but with ears of corn, apples, carrots, &c. Tame the steer by feeding him, and convince him that you mean no harm. Having done this, I introduce my business to him, by getting him into a corner with as much gentleness as possible. Here stroke him and pet him in various ways, feeding him with a nubbin or two of corn.

Of course he must learn to *haw*,—so I strike him gently on the *off ear* with my switch, and after that with my back towards him, twist his tail, (a little twisting is better than more;) I conduct him again to his corner and order him to *who*—which from the *force of circumstances* he is compelled to do. Thus I teach him to *stand* as well as *haw*, and in a short time he will obey the command in any part of the pen.

After sufficient practice in the pen, I let him out into a large yard, and then drive him with equal

success. Here he becomes well accustomed to the *Who, Haw, Gee,* processes. But if he does not prove sufficiently tractable I return him again to the small yard for further discipline. The other steer I serve in the same way.

Preparatory to yoking, I drive them both into the pen and exercise them together, making one stand while the other comes up as if coming under the yoke, the whip being held out to represent the yoke. Then taking the bows out of the yoke, I lay it on their necks, taking care not to frighten them in the operation, then put in the bows, and I have a yoke of oxen! But previous to yoking, drive them side by side in the large yard. While driving in the large yard either single or double, use a whip 8 or 10 feet long, and when driving both, put on a lash two feet long.

CAUTIONS.—Keep cool! use caution for yourself and for your cattle. If they *kick* you, look out next time, but don't return the compliment, for you are not to consider yourself on equal terms with them. A little patting and rubbing is better. If you have not Christianity enough to return good for evil, don't undertake to break steers. I had rather break a pair of wild steers for $5 than a pair that has been injudiciously handled for $10.

Be very careful not to overload them, and never drive them till they get out of breath. Many cattle are broken in spirit and constitution while young. Indeed, very few know what a good, well-broke, and well-fed, and well-tended pair of oxen can do. Never whip, and never talk loud. The superiority of this mode in economy of time, in ease of execution, and in final results, will be apparent enough to any one who trys it.—CHARLES H. WALKER, *in Wool-Grower.*

A SHORT CHAPTER ON HORSES.

We are very glad to be able to record the fact, that farmers are paying increased attention to the improvement of their horse stock. The stimulus of "Agricultural reading," and of minds of many persons, in regard to what is the proper stock for farmers to breed.

The wise breeder keeps control over the laws of reproduction, by a judicious selection of breeding animals; and crossing with an intelligent understanding of what the cross will produce, in "outline," and in anatomical and physiological peculiarities. He is a poor machinist indeed, who does not become familiar with the requirements of an engine, an economical expenditure of power in a given direction, and a poorer still, who does not familiarize himself with the tone, and elastic properties of metals, that he may select with reference to the dissimilar requirements of the several parts, and the combined power to be expected by the whole. The machinist aims to produce the greatest possible power in the smallest space, and with the least friction and fuel, in all of which he is consistent.

The art of breeding, being of equal, if not of greater importance, should be as carefully studied, and practised upon by the farmer. There are several prominent ends which should be sought in the rearing of horses; his reputation will be on a par with that of the well-informed machinist. An outline, pleasing to the eye, a fine quality of muscle, bone, and tendon, a large development of muscles, these combinations giving the greatest power in the smallest space. Speed and elasticity of movement, energy, intelligence and docility, large lungs and belly, with vigorous digestion, thus furnishing the means of engendering the greatest amount of physical force, from a given quantity of feed, and a long life, with continued health and energy.

These combinations are found but rarely, and we assert, without fear of contradiction, that the course heretofore generally pursued in breeding, has well nigh obliterated many of these leading characteristics of the *genuine horses.*

We occasionally find an animal, in nearly every neighborhood, possessing these qualities in the largest degree, and although of advanced age, they are always ready for their rations, and are always relied upon with confidence, for the plow or the road. Of these noble specimens, of an almost by-gone race, all are ready to bear testimony that "Old Charley's" end of the double tree has never been known to slacken, nor he to limp, complain of the colic, or refuse a feed; while many a scrub has sickened at his side, or been turned out to grass with spring knees, spavin, ringbone, sweney, windgalls, and cholic, "Old Charley" has kept the even tenor of his way, has seen generations of badly bred nags come and go, from want of capacity to digest a hearty feed, or to endure the labor of the field and road.

Farmers should select these rare specimens, and study their formation and peculiarities with care, and practice upon the lessons thus obtained.

The very worst recommendation a breeding horse can possibly have, is that he possesses great *height.* If the horse had been made like the "Crane," for wading in search of food, or could be made useful to man for hunting ducks, or as a fruit ladder, then it might be well to breed a few for these objects. But, inasmuch as, for all the uses to which we put the animal, long legs are a serious disadvantage, rendering him liable to cripple up at an early age, (who ever saw a "leggy" horse fit for the road at 15 or 20,) and being invariably coupled with other serious imperfections, it is of the utmost importance, that we steer clear of all animals for breeding purposes, both male and female, that show too much "daylight." Or, if under the apparent necessity of breeding from a mare with this form, a sire should be selected of the opposite extreme, and thus will the defect "breed off" in the progeny.

The proper horse for the farmer, (and a horse suitable for the farmer's use, is *just the horse for all purposes,*) is one of enduring constitution, round in the body, thick set, quick but not fiery, good sized joints, but not large boned, broad in the hips, deep in the quarter, strong in the loins, capacious in the chest, low upon the legs, and having a good hoof. Such a horse will be hardy, strong, and a good traveller, and always *up to the collar and the feed box.* Let us ask the farmers, what proportion of the horses that are kept through the country for breeders are of this description.

The horse that we have described as a "model," will always be found, if his genealogy be traced back, to have sprung from *high bred stock.* He may not be great of size, but a trial of 15 or 20 years has proved to his owner, that he is possessed of *quality,* unknown to the scrub. His muscles and joints are firm and powerful, and he moves with ease a load that staggers a scrub with flabby muscle, and loosely set joints, though he be of greater size.—*Ohio Farmer.*

For the New England Farmer.

LETTER FROM THE HOMESTEAD.

BY H. F. FRENCH.

What kind of a Farm to choose, Hill or Plain—Use of Stone for Fences—Apple Trees destroyed by Mice—Stone Fences best for Pastures, Doubtful as to Fields—Stones a great Nuisance in Tillage, but convenient for Drains—Consolation for those who have hard Farms.

My Dear Brown:—My sojourn a few weeks on the Homestead shows what perhaps a thoughtful man might know at any time, that there are some things that may be better learned in an old place than on a new one. At Exeter I have wrought, mainly on new land, till I brought my farm, upon which I offered to sell all the hay in 1848 for twelve dollars, to yield a crop which I sold this year, standing, for $155, besides eight tons which was put in my barn. Most of it grew upon land where I had dug the stumps, cut the bushes, and sowed the grass seed in autumn, without raising any hoed crop or grain.

There is hardly a stone to throw at a dog on the fifty acres. The buildings are all new there, the trees all young, and everything in order. But here, I return to a different scene. Fifty-five years ago this house was built, and the barn and the sheds. All along during the century, from time to time, my father, who was one of the progressive farmers of his day, though a lawyer of large practice, was improving his farm. My first impressions of farming, are made up of laying heavy stone walls and blasting rocks. This was the great feature of the farm operations when I was a boy. To get a few acres clear of stones, and well walled in, was the great thing. What was undertaken, was done, in those days, and you have seen the smooth fields, and the big wall, seven feet high, round the barn-yard, built of stones many of them of two tons weight each. It would make a cannon-proof fortification about Sebastopol. Then the fifty-acre cow-pasture, and several larger pastures for the young cattle, were all walled in, and everything made secure.

Stones or no stones, that is the question. I have thought of it a good deal, as every man should, especially if about to purchase a farm. "Commentators differ" upon this, as most other subjects. One man says he would not take the gift of a rocky farm. He would have "easy land," while another does not exactly see how one can get along at all, without stones in abundance, for walls and drains and divers other uses. Having had for some years a farm of each kind under my charge, perhaps a statement of the *pros* and *cons* may be useful to some of our readers.

As to fences—a stone wall is doubtless the cheapest and most durable of all fences, and where stones are constantly working up in your fields and must be removed, no doubt this is the best use to make of them. But the objections to stone fences around fields and gardens are numerous. They occupy a good deal of land, not only by covering it, but their rough points, and the fear which cattle have of touching them in plowing, prevents working within about two feet of the wall. It is a great labor which the crop will not repay, to dig up those spaces by hand, and so it generally happens that briars and bushes occupy them, offending the good taste of all beholders. Then again stone walls furnish excellent accommodations for vermin of all descriptions. I remember that either Downing, or one of his correspondents in the *Horticulturist*, said, that in his neighborhood, people would as much fear that their fruit trees would be eaten by giraffes, as by mice! But while the former animal is very rare in this region, it is quite common to find our best apple trees, even of six inches diameter, entirely girdled by mice, if the trees stand near an old wall. In an orchard on the Homestead here, we have replanted the row next the wall many times, and now it is not more than half complete, because once in a few years, some hungry mouse has crept out from the wall under the snow, and avoided starvation by gnawing the bark from a tree.

Many farmers in old times planted a row of apple trees round their fields near the wall, but although the trees grow better near a granite wall, than elsewhere, for various reasons, yet the ravages of the mice, the difficulty of properly cultivating the trees and of collecting the fruit, settle the question in favor of regular orchards, rather than scattering trees.

On the whole, I think in most localities, especially where land is valuable, the balance of argument is not greatly, if at all, in favor of stone fences for our fields. For a *pasture*, there is nothing so cheap, so convenient, so reliable, as a good stone wall. If it falls down occasionally by the action of the frost, you are pretty sure to find the materials close at hand for repairs. If, therefore, one could have just stone enough to complete his walls round his pastures, and a few spare ones for drains and the like, and clean fields and gardens, it would be the prettiest farm in the world. But Providence does not so order things. While I have actually been obliged to send to a neighbor's farm in Exeter to beg stones enough to load a field roller, I should judge from the walls and fragments about the old place here, that the surface might be covered a foot thick if the stones were carefully spread again. And by the way, you remember how one Sunday this very summer, one of my Devon cows, educated in my smooth pasture at Exeter, was caught between two stones here in the pasture, ignorant as the poor thing was of such traps, and how she nearly tore her foot off. I think you cannot have forgotten the profound deference with which I bowed to your superior dignity, as being principal editor of the *Farmer*, and Lieutenant Governor, and stood by and saw you bind up the lacerated foot with tar! The only wonder to me was, that there was a place in

the pasture where there was room enough for a cow to get her foot between the stones! Perhaps, however, such accidents are of too rare occurrence, to form a serious objection to rocky pastures.

Stones are a great nuisance in plowing, in hoeing, in mowing, and indeed all other operations on the land. On my Exeter place, we grind our shovels and hoes, and they hold their edges for weeks. We set the plow at one end of the field, and it runs without stopping or breaking the furrow to the other. We grind our scythes, and they are only dulled by cutting the grass itself. Here, although our fields are cleared, and the boys have picked stones for a hundred years, every stroke with the hoe or shovel gives back the sound of a pebble on the steel, and the implements are soon blunted.

We use nearly double the team in plowing, and the plow groans and labors constantly, as if passing through a stone heap, and every new breaking up of the sward brings to light a few loads more of the hidden rocks. Clear your field as you will in a stony region, some round pebble will rake your scythe from point to heel, every swath, and occasionally the point of a fast rock will break such a gap in the edge, as will send you groaning to the grindstone. And as to mowing machines, the effect of contact with stones with one of them is too painful to be more than alluded to.

In this view, decidedly, I don't like many stones on a farm. I never felt the want of them in Exeter, except for drains. Our friend French, of Braintree, I understand, purchases tiles as being cheaper than the use of stones, though stones are abundant on his farm. If I could find good land free of stones, I should vastly prefer it to what is called stony land. For my drains in Exeter, I have made use of bushes, filling the drains, say a foot or two deep with bushes, and poles of an inch or two in diameter, covered with turf or old boards, and filled up with earth. They carry water well, and have answered a good purpose thus far, six or eight years. Still they are not sufficiently permanent; and they furnish quite too good accommodations for moles and mice, "and such small deer." Stones of almost any description are much better.

After all, there is much to be said in favor of the hard hill farms of this part of New Hampshire. The world does not produce finer apples than old Chester. They constitute the leading selling crop of the town, as indeed of the county generally. On these hills, where we find a pan so hard that we use a crowbar in digging a post-hole, and often find stones enough to nearly fill it when dug, an apple tree is almost sure to live and thrive. Trees are rarely winter-killed on high and hard land. The frost strikes neither so late in spring, nor so early in fall, as on the plains, so that we often see dahlias and tomatoes and such tender plants in full freshness two weeks later here, than in the valleys around. Less rain probably falls on the high ridges of this county, than in the river valleys, yet there is no land that endures a severe drought such as that of last year, like the high rocky farms. These are some of the considerations to be weighed in deciding how to choose a farm, when about purchasing, and some of the sources of consolation, or reasons for being discontented, which a man who lives on a hard farm may always find, according to his disposition. A morose, "sour-complexioned" man would be miserable in Paradise with Eve by his side, while he of cheerful heart will bear his portion of the burden laid upon father Adam, and earn his bread by the sweat of his brow, and find content, and create a happy home, even in a wilderness.

Truly yours, H. F. F.

Chester, N. H., Aug., 1855.

For the New England Farmer.

DEEP AND SHOAL PLOWING.

Messrs. Editors:—There is nothing which will make such a lasting impression on the mind as what we experience. Theory, like the *ignis fatuus*, often bewilders and leads to error in practice. Relating our experiences, whether successful or otherwise, may prove useful by conveying instruction to the minds of those of less experience. Living in different States and working on land of various soils in different locations, I have become so liberal-minded, that, like the *anxious politician*, I can join both parties, the one in favor of deep plowing as well as the one in favor of shoal plowing. The success of the farmer in plowing his fields depends much on his knowledge of the soil he is working on; if the subsoil is clay and retentive of water, it looks reasonable that he might plow deep. If it is a hard iron pan land, which may be known by its iron-rusty color, under-draining is better than disturbing a poisonous subsoil. If the subsoil is of a loose, sandy or gravelly texture, shoal plowing would be preferable, unless large quantities of manure can be applied.

In the memorable year of 1816, in what is now the city of Lawrence, I engaged a neighbor to unite his team with mine to plow a barren elevated piece of land, the subsoil a fine clay loam compounded with coarse gravel. I put the plow in up to the beam; my neighbor exclaimed, you will ruin your land; I said, Captain, I am in no apprehension of making my land any worse, for it has borne nothing but "pussy grass" since it came into my possession. The result was that Mr. J. How and myself had the only eatable corn raised in the town that year. The next year I had 20 bushels of spring wheat at the acre, and the succeeding year nearly three tons of hay on the same acre; all these crops from one ordinary dressing of barn manure plowed in, and a little gypsum. I speak not of these crops being extraordinary, but merely to show what an effect deep plowing will have on some kinds of worn-out land that had previously been superficially plowed.

On my present farm I have plowed deep on elevated red gravelly soil, but with a different result, and have come to the conclusion that converting such land to a forest is best for the credit of the soil as well as for the interest of the proprietor. I have a field of 10 acres, low and level, which bears

the drought equal to any other land; part of it is founded on a hard iron pan subsoil, which, when exposed to the air, slakes into a coarse red sand very porous. I have found draining this land by ditching has improved it, and that a superficial plowing is better than deeper. All below the organic soil appears to be an inert iron colored sand, if not poisonous, entirely destitute of any fertilizing principle, only fit to sustain the upper stratum, and the nigher I have applied the manure to the surface, the better my crops of potatoes, oats and grass have been. On the whole, I have concluded that the dispute about deep and shoal plowing will compare with that about the color of the chameleon. Every thing relating to success depends upon the situation and kind of soil we work upon, and the care and manner of doing the work; and every farmer must judge from observation whether deep or shoal plowing will afford him the best crops. For one, I am fully persuaded that deep plowing in soils of certain combinations, which I am not chemist enough to define, is altogether best, and that with our scanty supply of manure, generally, shoal plowing in many locations will better reward the farmer's expectation.

Wilmington, 1855. S. Brown.

For the New England Farmer.

PEAT FOR MANURE.

Peat, muck and meadow mud consist largely of decomposed and decomposing vegetable matters, which have grown on the spot where they are found, or been washed into their present localities from the surrounding high lands. Being covered up and excluded from the action of the atmosphere, decomposition goes on very slowly. In proper peat there is present more or less tannic acid, which preserves it from decomposition. In addition to the vegetable matter in peat and mud, there are present such mineral elements as existed in the vegetables of which it is composed, and such as have been washed from the neighboring soils. Of course there will be found some difference in their composition, arising from the nature of the surrounding soils. The minerals principally found in peat are silica, lime, magnesia, iron and alumina. I find on record analyses of about thirty samples of mud, and the average of them gives 79 per cent. of vegetable matter, more than half of which is in an insoluble state, that is, not completely converted into humus, or but partially decayed. One quality in peat and muck which adds greatly to its value, is its strong affinity for ammonia, which it absorbs with great avidity and retains for the use of plants. Dried peat has an almost unlimited power of absorbing and retaining this element so necessary to vegetation. When peat is quickened by an admixture of substances containing ammonia, it becomes one of the very best fertilizers that can be applied to light, sandy soils, and indeed to all soils that have been deprived by cultivation, of vegetable matter, that was present in them when they were first brought under the plow. It restores the very elements which they need.

When we say a soil has been exhausted, we mean that the vegetable and mineral elements on which plants feed have been eaten out of them. Peat and mud abound in the ponds and swamps and meadows, and by the sides of the creeks that are so liberally distributed throughout the eastern States. They are so many reservoirs in which have been accumulating for centuries, the very materials that are needed to renovate the light soils upon their borders. These soils, since the wood has been cut from them, and they have been brought under cultivation, or used for pasturage, have been exposed to the full action of the rain, which has dissolved and washed the salts and soluble humus into the low grounds adjacent, where they are stored ready to be returned to the soil from which they were taken. An inexhaustible supply is thus provided, ready to be used over and over again by succeeding generations of cultivators. Nature is thus furnishing materials to ensure the fertility of the soil for all coming time. But nature will not apply it to the soil. Man must do his part of the work. It is for him to apply the materials thus provided for him, to the soil which is most in need of it, or which his convenience may lead him to cultivate. This he must learn to do at the proper time, and in the most economical way.

Nature is ever at work for man; but she does not do everything for him. She intends that he should be a worker too. She provides for him, all the materials he needs, and points out to him the deposits in which they are stored, and compels him by his wants and necessities, to bring them to light, and apply them to use. Thus when he finds the soil, by continued cultivation, so far exhausted that it refuses longer to supply his wants, he is compelled to examine its composition, and see what it has lost, and inquire how it can be restored to that state of fertility in which he found it when he first put it under cultivation. He compares his worn-out field with a portion of virgin soil. He finds the decayed vegetable matter, and some or all the salts, have disappeared. The remedy then is obvious. The vegetable matter, the staple food of living plants, and the wanting salts, must be restored. But where are these to be found? This becomes the subject of anxious inquiry. He notices that the lighter and more soluble portions of his lands are being constantly carried by the rains and melting snows into the valleys and basins and lowlands, and that vast accumulations have here been made, and upon examining them, he finds the very elements which are wanting in the soil which he has been cultivating. Here then he has found the very thing he wants, the means of restoring to fertility his worn-out and exhausted land. His own industry and ingenuity must do the rest. Here nature leaves him to work alone. She has provided the material which he needs, and stored it up in vast deposits within his reach. When man has cut off the forests around his dwelling, and destroyed the fuel upon the surface of the earth, he examines the bowels of the earth, and there he finds vast store-houses of fuel provided for his wants, by the beneficent hand of nature. But by his own ingenuity and labor he must bring it to the surface, and prepare it for use. Thus it is with the fertilizing elements which he has used up in the land from which he has drawn the means of sustaining his life. Because his land grows less and less productive by continued cultivation, he need not fear that it will ultimately become barren, and cease to supply his wants. Nature, with far-reaching sight, has foreseen this very emergency, and provided for it long before his necessities led him to make the discovery, and now his own labor and skill must do the rest.

Concord, Aug. 10. J. R.

NEW-ROCHELLE, OR LAWTON BLACKBERRY.

We have published, before, some account of this delicious fruit. It is hardy, and a great bearer, and is an important accession both as a dessert and for preserving.

The account below is from the *American Agriculturist*, and we publish it, with the accompanying engraving, not to endorse all that is said of it, because we have not a personal knowledge sufficient to justify it. Judging, however, from the specimens we have growing in our own garden, we hardly think the description overstated. The plants may be purchased in this city of GEORGE DAVENPORT, Esq., 14 Commercial Street.

A year since we gave a somewhat full report (the first one published, we believe,) upon the claims, characteristics and value of the New-Ro-

chelle Blackberry—called also the Lawton. We recommended the plant as one worthy of general cultivation, and our endorsement and remarks have been extensively copied by the press of this country, and by some European journals, and a very general interest has been awakened. An evidence of this is found in the circumstance that, during this month, more than a hundred horticulturists and others, from Boston, New York, Philadelphia, and the cities and towns between these places, as well as from Concord, Albany, Newburg, Utica, Syracuse, and Rochester, have visited the grounds of Messrs. Geo. Seymour & Co., of South Norwalk, Conn., in response to their invitation for "all interested to come and see the plant growing and bearing, and *taste* the quality of the fruit."

These gentlemen have, we believe, the largest area in the country (some five or six acres) devoted to the cultivation of the genuine variety of this plant. A part of this ground they use for raising young plants, and a part was left to fruit this year for the purpose of showing it in bearing while in field culture. All who have examined the fruit have been surprised and delighted with the large size of the berry, its deliciousness, and especially its productiveness. We visited this plot on Thursday of last week, and from what we saw there, as well as at other times during the past year, we are ready to endorse all we stated a year ago.

The plants especially devoted to fruiting were set out two years ago—eight feet apart each way—upon a rather poor, worn-out, hill-side soil, with no other previous preparation than plowing and an ordinary coat of barn-yard manure. The only cultivation since has been keeping down the weeds, and the application of about 400 lbs. per acre of Peruvian guano, which was sown broadcast last spring and worked in with a cultivator where the plants were not spread out so much as to preclude the use of this implement. The ground is now so thickly covered with loaded vines and young shoots that it is difficult to go over it.

Since the beginning of the month visitors have had free access to about one-fourth of an acre, and though hundreds of quarts have been eaten or carried away, the whole vines on this plot seemed to be loaded with berries. Two canes in each hill were allowed to fruit. We counted the berries on some of the average-bearing canes or single stalks, and found from 500 to 1,000 ripe or growing berries on each.

The size of the fruit can hardly be appreciated by those who have seen only the common varieties of blackberry. Of about the average size, 30 to 40 berries filled a pint basket; while of those a little above the medium, 20 to 25 berries did the same. An inch to an inch and a half may be set down as the average diameter, though larger berries are quite common.

There are two remarkable things about this variety, viz: its few seeds and its richness of flavor, notwithstanding its large size; and its steady bearing, for we learn that it has not failed to yield an abundance of fruit every year since its cultivation, now a dozen years or more.

It appears quite hardy, as it sustained very little injury in the open field during the past severe winter. We noticed the tops of a few of last year's canes were slightly nipped by frost.

It grows well even upon poor soil. We should advise a moderately dry loam, but some cultivators recommend even a heavy clay as best. It has been thought that blackberries need shade; but those cultivated by Seymour & Co. are upon an open lot, and we found the best and richest berries upon the top of the vines, where most exposed to the sun. However, the fullest clusters of the largest fruit, though not the sweetest, were partly shaded by the leaves. Mulching, or covering the soil with straw, leaves, salt hay, or some such substance, is doubtless good treatment for this, as for all similar plants. We should advise the selection of at least a moderately good soil, deep plowing or spading, with a coating of barn-yard manure or guano. When first set out they should be placed at about their natural depth, say 3 inches, in rows 6 to 10 feet apart, and the stems be cut down to within six inches of the ground.

They may be set out in November or April, in this latitude; at the South, in March. Probably November planting is preferable. If planted in autumn, it is better to cover them up till spring with straw or litter.

We have spoken thus freely of this fruit, because we esteem it a valuable acquisition, and we desire to see it distributed so extensively that it may soon become abundant in every market. It now sells readily in New York for 25 to 20 cents per quart, while we do not see why it may not be raised, with a fair profit, at 5 or 6 cents a quart. Once planted, it requires no more labor to cultivate it than the same area of corn, since the chief care required is to keep down the weeds and an excessive growth of young shoots: though all of these that can be raised for some time to come will probably be in demand at fair prices. The limited supply, and the high prices heretofore asked, has been a bar to its general introduction; but several persons have a large number of growing vines which will be ready for sale the coming autumn, and we learn that the price is being considerably reduced.

A word of caution is necessary in reference to securing genuine plants, carefully packed: for unprincipled and irresponsible peddlers and speculators will in this case—as in that of fruit trees—attempt to palm off anything in the shape of a blackberry vine, as the genuine New-Rochelle. If carefully packed, they may be carried safely to a considerable distance, provided always, that in taking up or setting out, the roots are never left exposed to wind and sun.

For the New England Farmer.

TO MAKE BARREN QUINCE TREES FRUITFUL.

My Dear Sir:—The complaint of your correspondent, C. G. W., in the *Farmer* of Aug. 11, of the sterility of his quince trees, after a full blooming, is by no means an uncommon one. I have never been troubled with it, and have therefore had no personal experience in the matter, but have been credibly informed by those who have, that removing the earth from the principal branches of the roots, and puncturing through the bark with a fork, (common table fork,) or any sharp instrument, has proved efficacious in preventing a recurrence of the blight which settles upon the blossom, and prevents bearing. These punctures, as I understand it, must be so thick as to well scarify the bark, which, from their smallness, will soon heal over, and should be given after the fall of the leaf in autumn, or in early

spring. When the puncturing operation is performed, the earth is, of course, to be replaced over the roots. The above remedy seems to me very plausible in theory, though it looks like a small and insignificant operation, (such, however, are often the best,) and for those who have cause for experimenting, it can be very easily tried, with the assurance that if no good results from it, no harm can follow.

I have found sowing gypsum on fruit trees, when in blossom, very beneficial in inducing the fruit to set. Sow when the leaves and blossoms are wet with dew or a moderate rain. Its effects upon the quince would probably be equally beneficial as on pears, plums and apples, though we cannot speak with certainty on the matter. Salt for quince trees I have found very beneficial. Apply over the roots in March. Yours truly, W. Bacon.

Elmwood, Aug, 13, 1855.

UNKNOWN TONGUES—LANGUAGE OF ANIMALS.

We make the following extracts from an article on this subject in *Putnam* for August:

How easily spiders are made to know the voice of their master, is familiar to all, from many a sad prisoner's tale. When the great and brilliant Lauzun was held in captivity, his only joy and comfort was a friendly spider. She came at his call; she took her food from his finger, and well understood his word of command. In vain did jailors and soldiers try to deceive his tiny companion. She would not obey their voices, and refused the tempting bait from their hand. Here, then, was an ear not only, but a keen power of distinction. The despised little animal listened with sweet affection, and knew how to discriminate between not unsimilar tones. So it was with the friend of the patriot, Quatermere d'Ijonville, who paid, with captivity, for the too ardent love of his country. He also had tamed spiders, and taught them to come at his call. For, when the French invaded Holland, the prisoner managed to send them a message, that the inundated and now impassable country would soon be frozen over so that they would be able to march over the ice-bridged swamps and lakes, for the spiders, true barometers as they are, had taught him to read, in their queer habits, the signs of approaching weather. The frost came, and with it the French; Holland was taken, and the lucky prophet set free. The spiders, alas, were forgotten.

Even the "hateful toad" has been the captive's friend and companion, and shown itself endowed with a fine ear and remarkable talents. They come out of the dark night of their holes, when their self-chosen master's voice is heard. They take flies from his hand; but what is the strangest of all, they actually learn to measure time; for more than one well-authenticated instance speaks of their having appeared only at stated times, when the jailor was absent and all was safe.

* * * * * *

The language which animals speak, by means of friction or concussion, is naturally the least known of all. We see the eager ant rushing homeward to tell the news of an invasion; she meets a friend, their antennæ touch and play with each other, in rapid succession. The messenger returns, the latter conveys the news by the same means to others, until the whole army is informed. Here we see, not an instinctive feeling of dread, but a clear, undoubted communication of facts. So among bees; the instant the queen dies, the sad event is made known throughout the hive. No sound, perceptible to human ear, is heard, but the antennæ move with surprising effect, and, as the result of a clear act of volition. It is not a sensation, merely, nor an instinctive action, but it has all the signs of special purpose. How they speak, we know not; this only is certain, that their language is not like that of the deaf and dumb, with whom signs represent letters or words.

The cricket, even, is not without its note of utterance, and although a purely mechanical sound, it has its sweetness and charm, so that Milton could speak of being—

> "Far from all resorts of mirth
> Save the cricket on the hearth."

It produces a loud, clear sound, by a quick vibration of the elastic skin between its wings; and from the time when the Athenians wore golden cicada in their hair, to our days, when the cricket on the hearth is the proverbial image of home comfort, its simple note has been dear to the heart of man. The true cricket, however, speaks only in the sunny time of love. The male begins in his hermit-cell, as May approaches, to produce a low, inward note of longing. As the sun rises higher, and summer advances, his shrill song becomes louder, until he finds the desired companion. Then he returns to his solitary life once more, and his voice dies away by degrees. Dean Swift has left us a humorous description of the curious note of the death-watch beetle. The little fellow, in his narrow cell, falls in love; immediately he begins to thump his head against the ground, and uses such energy in his demonstrations that he leaves deep marks in the softer kinds of wood. The powerful stroke produces a loud sound, the infallible presage of death to superstitious man, the soft music of love to the female beetle. If other males are within hearing, they all join in the concert with furious knocking, and such is their jealousy or zeal to answer, that even the ticking of an innocent watch excites their wrath and their loudest notes.

PRICES OF FLOUR FOR 20 YEARS.

In the Months of January, February, March and April.

	January.	*February.*	*March.*	*April.*
1836,	7,25	7,50	7,37½	7,50
1837,	10,12½	11,00	11,25	10,25
1838,	8,75	8,25	8,00	8,25
1839,	8,87½	8,93¾	8,00	8,50
1840,	5,87½	6,37½	9,75	5,62½
1841,	4,93¾	4,87½	4,75	4,92½
1842,	5,87½	6,43¾	6,12½	6,25
1843,	4,56¼	4,37½	4,75	5,12½
1844,	4,62½	4,81¼	4,93¾	4,90¾
1845,	4,68¾	4,84¼	4,81¼	4,75
1846,	4,66	4,56	4,76	4,62
1847,	5,12	7,00	7,12½	7,62
1848,	6,87	6,25	6,12½	5,75
1849,	6,00	5,87	6,00	5,60
1850,	4,50	5,50	5,56	5,50
1851,	5,00	5,00	4,75	5,00
1852,	4,56	4,62	4,52	4,31
1853,	5,56	5,50	5,00	4,56
1854,	7,87	9,60	9,00	9,75
1855,	12,00	12,50	11,75	13,00

Remarks.—The above were the prices at Albany, we suppose, as we cut the above from the *Journal of the New York Agricultural Society.* At Boston, prices have ranged considerably higher than the highest in this table, having in the course of the last six months been as high, at retail, as $14.

For the New England Farmer.

GREEN CORN FODDER.

Does green corn, when fed to cows, increase their milk? This is a point on which different opinions are entertained by practical men. I yesterday met a gentleman, who has one of the best farms in the vicinity, on which fifty or more cows have been kept for years, to furnish a supply of milk for the market; and he expressed a confident opinion that little or no benefit, by way of increasing the milk, accrued from feeding to cows *green corn*. I expressed surprise at this, as I knew it to be cultivated by many good farmers for this purpose, and as I had often seen it recommended in agricultural publications. He said he knew all this—but still his own experience was to the contrary. Now this is a question that should be settled. It is of far more consequence to know whether such feed is worth growing, than to know how much corn can be grown on an acre. We find every agricultural society of the land offering premiums for the best crops of corn on an acre, but I have never known a premium offered to test the value of *green corn* as a feed for milch cows, at the season of the year when the feed of pastures comes short. Mr. Editor, can you give the public any light on this question? Yours truly, AGRICOLA.

August 16, 1855.

Remarks.—We have never made note of the actual quantities of milk produced with, and without green corn fodder; but we should just as soon doubt whether *green grass* increased the quantity of milk, as to doubt that green corn fodder does. At the same time, we have great deference for the opinion of others, who have opportunity to notice the effect of such feeding, and whose opinions are, perhaps, as good as our own.

DANCING CRANES.

A correspondent of the *Prairie Farmer*, writing from "The Grove, Illinois," gives the following interesting description of the Brown Sand Hill Crane:

Many of these noble birds still nest in this vicinity, but their number is small compared with the numerous flock that a few years since might be seen holding their strange dances on some favorite knoll, or feeding, while their sentinels, judiciously posted, stood ready to give warning of any suspicious intruder.

Some are incredulous as to the dancing of cranes. It is true, their movements are not as graceful as a Frenchman's, or their quadrilles quite *a la mode*, but dance they certainly do. As for their music, though lacking the harmony, it is about as loud and melodious as a fashionable opera air.

The Sand Hill Crane is omniverous, devouring pretty much anything eaten by birds. The nest is a simple pile of rushes or grass—flat on the top, built in some deep slough or pond. The eggs, two in number, are shaped much like those of the common turkey, of a light amber color, splashed with brown. The nest is usually surrounded by deep water, but the young birds swim readily, and leave it as soon as hatched. It is believed by many that they separate, immediately upon leaving the nest, each of the old birds taking care of one—the supposition being that they would fight if allowed to remain together. In corroboration of this somewhat singular idea, I can only say, I never found two of the young birds in company, and a pair which I had caused a hen to hatch, fought from the time they left the shell, till, in fact, they killed each other outright.

The bird is easily domesticated. I kept one for several years, who showed all the attachment and intelligence of a dog. He never forgot a friend or forgave an injury. If any one had abused him, it was of no avail to attempt disguise; he recognized his enemy in any dress, and by an angry croak showed his displeasure, and warned them to keep out of his reach. He was a great gormandizer, and was very fond, among other things, of field mice, (*Arvicola*,) many of which he destroyed, being quite expert at finding their nests, and searching out the inmates with his long bill. He would have been of service in the garden, were it not for his inquisitive propensities, which led him to pull up for examination everything he saw us plant. Though a desire for knowledge might be very laudible, this mode of obtaining it met our disapprobation, and eventually caused his banishment.

Though a migratory bird, he did not seem to suffer from cold in the winter, and being fond of wading, even kept a place in a neighboring slough free from ice till late in the season, by tramping about in it. I provided him with a warm house, but he preferred to sleep with the cows. He always slept beside one of them, lying flat on his breast, with his legs folded under him, and his head and long neck turned back between his wings. He was on good terms with all the cattle, and might frequently be seen playing with them; his part of the performance consisting in springing up, flapping his wings, and whooping tremendously. This was precisely the same as the dancing of his wild brethren. He would also dance to the waving of a handkerchief; and on windy washing-days sometimes danced for hours at a time to the clothes on the line. When much enraged, he would stand with his head and bill pointed directly upward, and utter a harsh, croaking sound, quite unlike his usual *whoop*.

A young crane makes no despicable article of food. The old ones, I should suppose, would be rather tough and snaky; but an old Indian hunter of my acquaintance says, "A turkey is not half as good eating."

Audubon supposed this to be only the young of the White Crane, but he was wrong. The White Crane, (*Grus Americana*) is more of a southern bird, and exceedingly rare here. I saw a pair flying over this fall for the first time. These two species are amongst the largest and finest of our North American birds.

The Decay of Timber.—Some years ago, a philosopher, being acquainted with the fact that every species of fungus, which is the real source of the rot in timber, can vegetate only on substances which are soluble in water, made the following experiment with sawdust. He took a portion of sawdust from a heap, and divided it into two equal parts. One heap was washed over and over again in water, till everything soluble was removed; the other heap was undisturbed. Both, having been dried, were placed, side by side, in a damp, close vault, and allowed to remain there several weeks. They were

at length taken out, and the following was the result:—that portion which was washed until nothing more could be carried off by water, remained clean and bright as when it was carried into the vault: the unwashed portion had become the prey of foul parasites, and was completely imbedded in an offensive mass of mould. This experiment proved the theory of the philosopher, and convinced him, that, if by any means our timber of any sort could be deprived of all those matters contained in it which are soluble in water, it could be kept any number of years entirely free from rot.

For the New England Farmer.

SHORT READINGS ON APPLES.

THE MAGNOLIA.

This apple is the one which the late Mr. Cole introduced. It is nearly unknown in this region, (coming from Bolton,) and I have not seen but two persons who knew anything about it; namely, Mr. Cole, and a dealer in fruit at the Quincy Market, who said it was the best apple he ever tasted. Large medial, sprightly and tender, pale yellow ground, with crimson side. If any of the readers of the *Farmer* are acquainted with this fruit, I wish they would communicate upon it. Ripe in November.

THE AMERICAN SUMMER PEARMAIN.

A year ago last autumn, in September, I discovered an apple in Pleasant Street, Boston, which greatly excited my interest. A grocer had bought a barrelfull of a countryman for three dollars, but was not informed of their name. Most of them were large to very large, rather flat, with a broad basin, yellow ground, nearly covered with dark red. They were generally fair and uniform in shape, and would have created a sensation on the Massachusetts Horticultural Society's tables. They were tender, very pleasant and juicy, with white flesh, and many of them had numerous dark blotches, and some of them were slightly cracked. So interested was I in this splendid apple, that I was determined, if possible, to find out its name. I accordingly pocketed some, and took the liberty of calling on many eminent fruit judges in the city; but strange to say, no one could tell what it was. Last fall, I discovered another barrel of them, or what I supposed to be the same; yet they were of lighter color and were less blotched. The fruit-dealer did not know what they were, and I determined to make further inquiry. To be brief, I found a nurseryman who suspected it was the American Summer Pearmain; and looking into *Cole's Fruit Book*, I recognized it, I thought, in his description. This apple is so rare and beautiful, that it deserves an extended notice from some one who has cultivated it in New England. New Jersey is the place of its origin, and Mr. Cole says it cracks badly with us. Do cultivators of it here find it to be so?

COLE'S QUINCE

Is an apple which makes a great figure in *Cole's American Fruit Book*, and will probably be much sought after on his recommendation. I have a tree which bore about a dozen this year, but they did not meet my expectations. Most of them are knotty and wormy, and show no indications of ever being fit to eat; and though the tree sets full, most of the fruit falls prematurely. Mr. Hovey has it in his catalogue, and calls it a winter fruit; while in fact, it is an August and September apple. Unless my tree shows something better another year, I shall regraft it. Is there any living man well acquainted with this fruit, now Mr. Cole is departed?

THE GARDEN ROYAL

Is a very delicious September apple, and though hardly large enough to be considered a first-rate market apple, it has no rival while in the field. It sells rapidly at an extra price. Though not so large as the Gravenstein or the Porter, neither so fine nor so handsome, it must be a favorite wherever known for its tenderness, juiciness and fine mild flavor, which is similar to the Hubbardston Nonsuch, and its color also is very much like that apple.

THE FAMEUSE, OR SNOW APPLE,

So called from the whiteness of its flesh,—is a brilliant gem among autumn apples, ripening in November; medium size, flattish, smooth and uniform in shape, with as high color as the Williams, and purer flesh, it always attracts attention. It is very tender, pleasant and juicy, and in December has the freshness and peculiar flavor of an August apple. This fruit came from Canada, and is suited to cold regions.

THE RED ASTRACHAN

Is an apple which is attracting much attention at present, and for an August apple, will rival, if not surpass, the Williams. It possesses some virtues which the latter fruit does not, though its flavor is not so mild and agreeable. It has a white, delicate ground, mostly covered with vermillion, with a bloom similar to a red plum. It is a good grower, and an early bearer; but a little too tart for most persons, and rots more rapidly than the Williams.

W. Medford, Aug. 20. D. W. L.

For the New England Farmer.

BLIGHT UPON THE ONION.

About four weeks since I had occasion to pass some of the fine cultivated fields of onions, that abound in this vicinity, when they were clothed in a luxuriant *green*; since then I have seen the same fields almost *white*, with tops drooping and fallen—with bottom not yet perfected. The occasion of this sudden change I do not understand; but learn from those interested, that their crop is blighted; that whenever the blight prevails, the product will be greatly diminished. Whether this fallen, decrepid appearance, is the consequence of insect operations, or superabundance of moisture, or is occasioned by any peculiar state of the atmosphere, I will not presume to say; but that it prevails, to a very considerable extent, cannot be denied.

We have noticed contiguous fields, one drooping, the other upright;—and parts of the same field fallen and parts not fallen; but how to explain this difference is not in our power. Perhaps if we had marked the time of planting, and the manner of manuring, and the use made of the field in years previous—the solution of the problem would not have been so difficult. We speak of only what we have seen—if others can tell more, we should be pleased to know it.

The culture of the onion has expanded, within our recollection, almost without limit; and if, like most other objects of culture, it is to be regulated by the profits of the business, it is destined to a still greater extension.

We know of no section of the country, where it is more successfully pursued, at the present time, than in the environs of Salem, Mass. Here are to be seen, fields of six, eight or ten acres together, under the care of the same individual, with the prospect of four or five hundred bushels to the acre. The average price of this vegetable, for the last ten years, has been as harvested from the field, not less than *fifty cents* per bushel—and so on to *one dollar*, according to the demand. More than 200,000 bushels were grown the last year in a single town adjoining Salem. Can any one name a more productive article of culture?

It may be asked, where is the utility of growing this crop, as it cannot be looked upon as an essential article of food for man or beast? With much more propriety may it be asked where is the propriety of growing *tobacco*, as done on the fine lands on the borders of the Connecticut—which in all its qualities is positively bad. Still, so long as there is a demand for these things in the market, they will be grown; and less harm will follow the growing of the salutary onion, than the nauseating and poisonous tobacco plant—too offensive to be used by any animal except man.

EXTRACTS AND REPLIES.

RED-HEADED GRUBS.

Mr. Editor: — I should like to learn through the columns of your invaluable paper, whether there is a remedy for the red-headed grubs which are destroying whole fields of grass? They eat off the roots of the grass, so that the turf will peel off.

It seems that the better the land is cultivated, the more worms there are. This worm is called by some the muck worm. J. P.

Remarks.—No depredations of this kind are going on in this section, and if so, where they are on so general a scale, nothing that we could afford to apply would be likely to arrest them. Will our correspondent try ashes on a square rod, spread on liberally? and on another lime, noting the amount of each that he applies? We shall be glad to learn the result.

—

LICE ON CATTLE.

This pest may easily be removed from any creature in an hour's time by washing or *lathering thoroughly* with good soft-soap and soft water. About two quarts of each thoroughly mixed and warmed, will, if well applied, kill every louse, and every egg will be prevented from maturing on any animal, whether horse or ox. This is a perfect and a safe remedy. If very troublesome, it is frequently best to "soft-soap" them the second time, after the first has become dry. After the second drying, wash out the soap with water in plenty, and you need fear no bad effects from it, but on the contrary, the creature will thrive the better, colts especially.

The above application is worth five dollars to every colt, whether lousy or not, before putting off to pasture in the spring. It should be done in a warm day.

Tobacco, snuff, oil, mercurial preparations, ashes, sulphur, and many like things, are generally resorted to, and even *arsenic* is sometimes used. If either is applied in sufficient quantities to produce a perfect cure, the health of the animal must be impaired by the absorbent vessels taking too much of their poison into the system. Who would dare cover himself with mercurial ointment, or arsenic and lard? I pause for a reply." G. F. N.

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LOCUSTS—GARGET—NEW PROLIFIC WHITE POTATO.

Mr. Editor:—I snatch a moment from the hurry of business to reply to a few inquiries in the *Farmer* for August. Locusts made their appearance in Sandwich last June. I have two pairs, male and female, upon a card labelled "Locusts of July 1st, 1855, due again in 1872;" they appeared in considerable numbers, but in East Wareham, very few compared with 1821. In 1838, I was in the "Far West," and do not know as they appeared in this section.

Some one, for garget, recommends linseed oil as a sure cure. It may cure in some cases, as oils are sometimes used with success in local inflammations; but in using linseed oil for garget, there is great danger of driving the disease into the entire system, and greatly injuring the cow. Upon the first appearance of garget, carefully and thoroughly wash the udder and teats with pure cold water, both before and after putting the calf to the cow, or milking; milk three times a day, or at least wash that number of times; and in a very short time your cow will be free from the disease. I have never known this treatment to fail of curing, even in cases where the udder and teats had become badly ulcerated.

In reply to the inquiry of James Richardson, Jr., I have a new variety of white potatoes that are much more prolific than peach-blows, that I have tried and proved for, I think, about eight years. Two years since I was absent from home from December to the last of the following July, during which time these potatoes were sold or otherwise disposed of, much to my disappointment and regret. However, there sprang up a potato vine in my garden, which was then uncultivated, which throve well; and in the fall I dug the potatoes, and to my surprise, and satisfaction, found them to be of my cherished seed. By referring to minutes of last year, I find that with this seed I planted about twenty hills. My potatoes last fall were harvested in my absence, and every variety of white potatoes put together. This spring I found time to search out my favorite seed, and have planted 318 hills; the largest were cut into three pieces, two pieces to the hill; the small, of the size of hens' eggs, planted whole, two to a hill. Their flavor and the color of their flesh is similar to pink eyes or peach blows. There is so marked a distinction between them and any other variety known to me, that I could, after they have sprouted, pick them out in the dark from any others. I call them *Cape Cod*.

North Sandwich, 1855. Mortius.

—

SUPERPHOSPHATES.

What is the effect in applying De Burg's superphosphate of lime, and have it come in contact with lime or wood ashes? S. E. R.

Remarks—Superphosphate of lime as sold for agricultural purposes, is a combination of substances, some of which might be affected by coming in contact with quick-lime or ashes. As a general rule, it is best to use them separately.

TO MAKE BARREN QUINCE TREES FRUITFUL.

MR. EDITOR:—In answer to the inquiry, what can be done to make barren quince trees fruitful, I would say, that my method is to graft them. The grafts will bear the second year, and then you will have an abundance of fruit. Besides, you can select the best of fruits, which is an advantage.

But some say that oyster shells have the desired effect. I think if there is any virtue in them to make the barren fruitful, it is the salt, and if so, the salt alone will produce the same effect, and may be obtained with less trouble. P. WAIT.

Danvers, Aug., 1855.

—

CURCULIO REMEDY.

Saturate a piece of cotton cloth, eight or ten inches wide, in strong soap suds, and tie around the tree below where the limbs start out. The fruit of trees which I have served thus is entirely free from punctures, while the fruit on those without the cloth is sadly affected. F. STEVENS.

Halifax, N. S., 1855.

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BARREN PLUM TREES.

In reply to C. G. W., in the July number of the *Farmer*, in relation to barren quince trees, I would say that plum trees, in the like state of barrenness, can be brought to bearing successfully, by applying a few quarts of salt around the roots, put on in the fall. H. B.

Northfield, Vt.

—

H. BROWN, *Foxboro', Mass.*—The apples you sent are probably seedlings, though it resembles Lyman's Large Summer apple, introduced to notice by Mr. S. Lyman, of Manchester, Conn. Being early, and of a sprightly sub-acid flavor, it is worthy of cultivation.

A box of Grapes, of J. FISKE, *Holliston, Mass.* Very large, and a month earlier than usual. Mr. Fiske states that the vine covers a space of fifty feet *over the cow-yard*, thus preventing the manure from drying, and affording a fine shade for the cows.

Early Sweet Bough Apples, from ABEL COOK, *Lunenburg, Mass.*—Large and beautiful. There are not half enough of them produced.

For the New England Farmer.

POTATO CROP.

The forebodings of the *last week* are realities of the *present week*. Unequivocal demonstration has come to us from Swampscot, on the one side, and Beverly, on the other, of the fatal prevalence of *the rot* among the potatoes. The chenangoes are most affected. We would caution against the use of potatoes that have a tendency to the disease. We have known entirely families taken with severe indisposition, by reason of the use of vegetables thus affected, even when they were entirely fair to the sight. Of this we have no doubt. Of the new varieties of potato that have been tried in this vicinity, the present season, there is none so highly praised as *Davis' Seedling*. Side by side, with other varieties, this escapes disease entirely. Some pretend to crack up the "State of Maine potato,"—but the best observers say, it is a miserable concern—entirely unworthy of regard.

Aug. 23, 1855. SOUTH DANVERS.

For the New England Farmer.

SPECULATIVE INQUIRIES.

MR. EDITOR:—Your correspondent from Chelsea seems to be moved with a horror inexpressible, at my reference to "Orion and the Pleiades" as influencing vegetation. If my recollection is right, my reference to these beautiful heavenly bodies was simply to show the folly of scriptural citations, in the explanation of natural events. Not that I for a moment entertained the belief of any such influences. He thinks we had better wait a "little longer," and see what further facts will be developed. This may be so, but would not such waiting put a stop to all inquiry? Have not I the same right to denounce his opinions as "supremely ridiculous," as he has mine? He, and all other controversialists, should bear in mind, that those who live in glass houses should be careful how they throw stones.

Your intimation that the ebbing and flowing of the tides may be caused otherwise than by the attraction of the sun and moon, is well calculated to admonish the sage philosopher of Chelsea that there are more ways than one to accomplish the same end. It had not before occurred to me, that the theory of the tides, which I learned when young from Enfield, was not well-founded; but I should not be surprised to learn, that the daily revolution of the earth upon its axis, and the inequalities upon its surface, have quite as much to do in producing the constantly recurring phenomena of the tides; as the attractions of masses of matter, so remote as are those of the sun and moon. At all events, a man should be wiser than your correspondent has shown himself to be, before he pronounces any assertion supremely ridiculous.

August 11, 1855.

EARTHING UP CELERY.

The present season has been a favorable one for celery, as indeed it has for most crops, and celery will no doubt be fine and plentiful. Where only sufficient is grown for the supply of the family, a little extra care should be given to earthing up, which is amply repaid by having clear sticks, nicely blanched. For very early use a small portion should be commenced as soon as large enough to draw earth to without fear of its getting into the crown, which should be carefully guarded against. The bulk of the crop will be better left till towards the end of September before earthing. If any manure water is obtainable before earthing, it is much benefited by having a good soaking, especially if the ground is any way poor, as it likes a very rich soil.

In earthing, careful growers always go along first with the hand, and pull off any little short leaves that would, if buried, only rot, and draw the earth nicely about each plant. A portion of the soil is then loosened up with the spade and made tolerably fine, and pushed up towards the plants. If they have been planted in trenches, if filled up level, it is sufficient for the first time, giving it one or two good earthings at intervals of one or two weeks.

For field culture, or where the breadth is large, and grown for market, recourse must be had to the plow, or the expense would be too large to secure a return. Many earth up with the plow without any handling of the plants, and with care and caution are able to do it without disturbing the leaves much; but as a general rule, it will pay to draw a

little to them first, with a hoe or the hand, as if a clod gets on the heart of the plant, the leaves get twisted and bent, and are worth less in the market. Except the soil is mellow, celery will hardly pay as a crop, from the difficulty there is in getting the earth sufficiently fine about the leaves.—*Country Gentleman.*

EFFECTS OF HEAT UPON MEAT.

A well cooked piece of meat should be full of its own juice or natural gravy. In roasting, therefore, it should be exposed to a quick fire, that the external surface may be made to contract at once, and the albumen to coagulate before the juice has had time to escape from within. And so in boiling. When a piece of beef or mutton is plunged into boiling water, the outer part contracts, the albumen which is near the surface coagulates, and the internal juice is prevented either from escaping into the water by which it is surrounded, or from being diluted or weakened by the admission of water among it. When cut up, therefore, the meat yields much gravy, and is rich in flavor. Hence a beefsteak or a mutton chop is done quickly, and over a quick fire, that the natural juices may be retained. On the other hand, if the meat be exposed to a slow fire its pores remain open, the juice continues to flow from within, as it has dried from the surface, and the flesh pines, and becomes dry, hard, and unsavory. Or if it be put into cold or tepid water, which is afterwards gradually brought to a boil, much of the albumen is extracted before it coagulates, the natural juices for the most part flow out, and the meat is served in a nearly tasteless state. Hence to prepare good boiled meat, it should be put at once into water already brought to a boil. But to make beef tea, mutton broth, and other meat soups, the flesh should be put into cold water, and this afterwards very slowly warmed, and finally boiled. The advantage derived from simmering, a term not unfrequent in cookery books, depends very much upon the effects of slow boiling as above explained.—*Chemistry of Common Life.*

For the New England Farmer.

A GOOD PRODUCT OF RYE.

Mr. Editor:—I was informed by Mr. Adino Page, of S. Danvers, that he had 7¾ acres of rye the present season, from which he harvested 229½ bushels,—150 of which were sold at $1,50 per bushel. The straw will sell for enough to pay for the labor of culture and harvesting,—so that the land may be estimated as yielding an income of $45 an acre; the manure applied having been made on the farm, of course, *costs nothing*. This we think a fair product, taking into view the quality of the soil, which has ever been looked upon as ordinary, scarcely worth owning. It affords a strong illustration of the benefits to accrue from the adaptation of the crop to the soil. If we do not mistake, there has been grown on the same farm, for ten years last past, crops of rye, each year, varying from 30 to 45 bushels to the acre. Who will say that farming is not worth pursuing, when the poorest land can be made to yield such products?

August 20, 1855.

☞ By a census lately taken, the population of Minnesota Territory it shown to be about 45,000.

THOMAS TYTTE.

Not by the Author of "Thanatopsis," "Robert of Lincoln," and Minor Poems.

Fluttering nervously here and there
Round his lady bird—odd little elf—
Now on an iron weed—now in the air,
Thomas Tytte is describing himself.
Tom-tit, tom-tit,
Spit, spat, spit,
I and my wife in this here tree,
Live as jolly as ever you see,
Feedle, dee, dee.

T. Tytte, Esq., is drest in blue,
Like every other high-born tit,
With a yellow vest and a choaker too—
You'll hear him crow, if you listen a bit;
Tom-tit, tom-tit,
Spit, spat, spit,
Examine this coat and vest of mine,
I'm rather a buck in the tom-tit line,
Feedle, dee, dee.

The wife of Thomas, meek and brown,
A simple creature afeard of boys,
Sits all day in a high-necked gown,
Laying eggs without any noise;
Tom-tit, tom-tit,
Spit, spat, spit,
Lay on, my dear—nobody'll come;
I'm keeping watch in this old gum,
Feedle, dee, dee.

A very retiring female she,
A pattern wife, the dame-tits say,
Always blowing and bragging is he,
In the old established, masculine way,
Tom-tit, tom-tit,
Spit, spat, spit,
I'm not the bird to run, that's flat!
I'm too good stuff, you know, for that,
Feedle, dee, dee.

Heigho! look here! two, four, six, eight—
Round and white—remarkable eggs!
Mrs. Tytte watches them early and late,
While Thomas is laughing and kicking his legs;
Tom-tit, tom-tit,
Spit, spat, spit,
Convenient wife this Mrs. T.,
Feedle, dee, dee.

The eggs are chipped, and eight small tits,
(The number of eggs) creep cautiously through;
Thomas, driven half out of his wits,
Scratches his head to know what to do.
Tom-tit, tom-tit,
Spit, spat, spit,
Trying thing this—singular fate!
Unusual number, certainly—eight!
Feedle, dee, dee.

T. Tytte, Esq., in a little while,
Gets not as careful of his clothes,
Seems quite depressed—hath a sickly smile,
And singeth mostly through his nose,
Tom-tit, tom-tit,
Spit, spat, spit,
Exactly where the young ones be,
Nobody knows, 'cept wife and me,
Feedle, dee, dee.

Autumn comes, the titlets grow,
Thomas Tytte is a blockhead dunce;
To foreign parts he's going to go,
And just as he starts we cry all at once,
Tom-tit, tom-tit,
Spit, spat, spit,
If your voice comes back, and you're not shot,
You come back with it, Tom, otherwise not.
Feedle, dee, dee.

RHODE ISLAND STATE FAIR.

This exhibition took place at Providence, Sept. 11, 12 and 13. The weather was intensely hot, and the dust excessively annoying, yet the occasion was one of great interest, and was numerously attended. We were unable to attend, and must make up our account from the ample reports given in the *Boston Journal:*

The exhibition is held at the Washington Trotting Park, which is well adapted for that purpose. Seats for some twenty-five hundred persons have been erected, besides special platforms for the managers, reporters and music. Ample accommodations are also made for feeding the multitude, and in fact, all the details of the arrangements on the field show a wise judgment and discretion on the part of the Committee of Arrangements.

On entering the park, we found the cattle, poultry, &c., in their pens and coops, ready to receive their visiters. The poultry coops first came under our observation, and the fine birds in them showed that, notwithstanding Burnham's expose of the "Hen Fever," there are those who yet retain an interest in it. There were thirty or forty coops. The greatest curiosity in this department was a coop of Turkeys, to which there is a story attached which I will relate. They were owned by J. A. Chedel, of Barrington, and the story is, that the "gobbler" has himself raised two broods of young turkeys. His mode of family government is this: after his better halves have set upon the eggs, and brought the youngsters into the world, he very kindly takes the charge of the little ones, and sets his helpmeets at work laying another batch of eggs. Twice he has done this, and once he has gone even further than this—he has actually set upon the eggs, and increased the census of turkeydom by his own efforts. If the question of "Woman's Rights" has ever been agitated among the feathered tribes, certainly this venerable patriarch must be held in high esteem by the friends of this reform. I am glad the committee awarded him a prize of $5. May he for many years escape the perils of Thanksgiving.

The swine came next. The number was not large, but the quality was good. Chas. H. Hall, of North Providence, exhibited a sow, four months old, quite a pretty creature, with black neck and shoulders, the rest of the body being white; Adams Carpenter, of North Providence, a fine Suffolk sow, fifteen months old, and second to no other on the field; J. A. Chedell, of Barrington, exhibited an imported sow from Callao, with a family by her side. She was quite a neat looking animal; Orray Taft, of Providence, exhibited an imported Suffolk boar, seven months old. He gives promise of making a fine animal; James A. Potter, of Providence, showed a group of brothers and sisters, three months old, averaging 175 pounds weight each. They were fine animals. Mr. Wm. Nickle, of Pawtucket, exhibited a Suffolk sow, with a family of eight little ones, whose neat and thrifty appearance bore good evidence of the excellent qualities of their maternal ancestor. Taken as a whole, the exhibition of swine, though small, was very good.

We next come to the exhibition of cattle. And here we must mention one deficiency in the arrangements for the exhibition, which renders it impossible for us to mention in detail the cattle which are really worthy of special notice. The cattle were in the pens, and many of them were fine looking ones; but the names of the owners, the age and breed of the cattle, were not there. We could find no one—except in one or two instances—who knew anything about them. We are obliged therefore to speak in general terms. Of milch cows there was quite a large exhibition, and the collection embraced some as fine looking animals as we have ever seen. The Durham short horns predominated. We noticed one or two Ayrshires of more than medium excellence. Of working oxen the exhibition was not large. The cattle exhibited were in good condition, well trained, and showed good treatment on the part of their owners. In the pens for bulls were a few good animals. The best one was a noble looking, gray Durham bull, two years old, weighing 1450 lbs. He is owned by Wm. B. DeWolfe, of Bristol, and is as gentle and kind as a cosset. He is truly a splendid animal.

The display of young stock was not large. One or two bull-calves gave promise of making fine animals. The display of sheep was small, and not of sufficient excellence to deserve special notice.

The Plowing Match took place between ten and eleven o'clock, There were nine competitors, viz five single and three double ox teams, and one horse team. The land plowed was very light and sandy, and so dry that the dust made by the turning of the furrows was a great annoyance. The work was done tolerably well, though it did not come up to the exhibitions in plowing by many of the County socieries in the Old Bay State. There was too much hurrying of the teams—a too free use of the whip and of the voice

The public exercises of this day closed with a lecture bp P. B. Johnson of Albany.

Second Day.

Providence, Sept. 12, *P. M.*

The public exhibition of the society to-day commenced with a grand cavalcade of all the horses entered, at ten o'clock, under the direction of Col. Wm. P. Blodgett as Chief Marshal. The display was a most brilliant one. The line of horses and carriages extended about once and a-half around the track which is a mile in length. The cavalcade was led off by the stallions, of which there are thirty-six entries, and the list embraced some very fine horses. The Black Hawk and Morgan Breeds predominated. They were not, however, all on the track this morning in the cavalcade.

EXHIBITION OF STALLIONS.

Immediately following the cavalcade was the exhibition of Stallions, the premiums for which varied from $10 to $200. As I before remarked, there were thirty-six animals entered in this class, and nearly that number appeared before the judges, some led by grooms, some in trotting gigs and buggies, and others under the saddle. Any one who has any love for fine horses would have had his fill of enjoyment in witnessing the noble animals here exhibited.

EXHIBITION OF BREEDING MARES.

In this department there were thirty-three entries. I have not at present access to the entry books, and as the mares are designated only by numbers, it is impossible for me to speak of them only in general terms. Taken as a whole, they made a fine appearance. A few of them were superior. One fine animal exhibited was owned by Tristam Burgess.—

She is nineteen years old, and it is said can go her mile in three minutes, easy. She had four colts on the ground, the eldest four years old. The Committee to award premiums on this class will have to exercise a nice discrimination in the discharge of their duties.

EXHIBITION OF FILLIES.

At half-past one the exhibition of Fillies took place. There are but nine entered. They were generally fine animals, and give promise of making good horses. Two of them attracted particular attention. They were out of the mare of Mr. Burgess, noticed above, by "Matchless." They were faultless in appearance.

As I close at half-past two, the track is being cleared for the grand trial of speed for horses that never trotted for money—the owners to drive, and to be persons who have never driven for money. The first premium is $200; the second $100. Mile heats in harness; best three in five. There are thirteen entries for those purses. There is hardly a prospect that the contest will be closed before dark.

The attendance of spectators to-day is mueh larger than it was yesterday. The arrangements have been carried out in the most satisfactory manner by the Chief Marshal and his aids, and there has been neither accident nor disturbance to mar the enjoyment of the day. The music of the American Brass Band has been highly appreciated by the large assemblage. The weather has been very hot, and the dust outside the park almost suffocating. A shower during the night would be a great blessing.

The entries of horses up to noon to-day were as follows: Stallions, 36; breeding mares, 33; draft horses, 25; fillies, 9; family horses and roadsters, 103; matched horses, pairs, 38; fancy matched horses, pairs 8; ponies, 11.

Providence, Sept. 13.

When I closed my dispatch yesterday, the marshals were clearing the track for a grand trial of speed between horses which had never before trotted for money. There were thirteen horses entered for this trial, but only nine of them appeared on the track at the call of the Judges—who were Messrs. Wm. H. Gardner, of Providence, Col. Thomas Adams of Roxbury, Mass., and William D. Lewis of Philadelphia. At the time of the horses appearing on the track, the grounds in the vicinity of the stand presented a very fine appearance. There were not less than 4500 people on the ground and on the seats erected by the Society, and of this number one-fourth at least were ladies—who seemed to take a deep interest in the race. The horses which started were as follows:

Uncas,	entered and	driven by	S. Woodbury, Providence.
Bird,	"	"	A. C. Barnes.
Genesee,	"	"	A. Livingston, N. Y.
Young America,	"	"	H. T. Sisson, Providence.
Stranger,	"	"	William Barnet, Jr., Boston.
Sam,	"	"	L. Baker.
Messenger,	"	"	D. S. Dickerman.
Ned Lawrence,	"	"	H. C. Belden.
Susan Kennedy,	"	"	William Cunliffe.

After one false start the horses got off in good style, Genesee taking the lead and maintaining it handsomely to the close. Stranger followed him closely, but the rest were more than a hundred yards behind, and were distanced. The time was 2.48. The contest now was between Genesee and Stranger, the other horses retiring from the track. Genesee came home on the second heat in 2.47, leaving his contestant about a length, and on the third heat in 2.48, thereby winning the first premium of $200. Stranger took the second prize of $100. Those who are much better acquainted with horse-racing than I am, say this was one of the best contested races they have ever seen. The ease with which Genesee did his work excited the admiration of all.

After this race was decided, there was some fine trotting by several of the horses, which were distanced on the first heat. The sport was kept up till a late hour. Mr. Sisson's horse, Young America, beat all his competitors.

In all the crowd yesterday I did not see a drunken man, or an ungentlemanly act. This certainly speaks well for the good order and modesty of the people of Rhode Island. The rules of the Society are well calculated to preserve order, and they are admirably enforced by the Chief Marshal, Col. Blodgett, and his efficient aids.

EXHIBITION OF THE HORTICULTURAL SOCIETY.

The tenth annual exhibition of the Rhode Island Horticultural Society commenced in this city yesterday, and continues until nine o'clock this evening. It is held in Westminster Hall, a splendid room, well suited for such a purpose. The exhibition is pronounced to be the finest ever held by the Society, and shows that the interest which has within the few past years been excited in the culture of fruit in Providence and its vicinity, as well as in more distant parts of the State, is well kept up. It was quite an agreeable change, after being on the Park during the whole day, almost roasted by the sun and suffocated by dust, to go into this beautiful hall, filled as it was with the choicest offerings of Flora and Pomona, and with those still choicer and more lovely daughters of Rhode Island, whose beauty and accomplishments formed the chief attractions of the occasion. I had before heard an enthusiastic Rhode Islander boasting of the beauty and loveliness of the daughters of his native State. After the display I witnessed last evening, I shall not contest the point with him.

HOW TO COMMENCE BUSINESS.

Well, boys, we doubt not that you would like to rise high in the world, and become good farmers, merchants, &c. Here is a good motto for you—Begin at the lowest round on the ladder and keep climbing; and here is a story which will illustrate just what we want to say. One of the wealthiest merchants of New York city tells us how he commenced business. He says:—

I entered a store and asked if a clerk was not wanted. "No," in a rough tone, was the answer, all being too busy to bother with me—when I reflected that if they did not want a clerk, they might want a laborer; but I was dressed too fine for that. I went to my lodgings, put on a rough garb, and the next day went into the same store and demand if they did not want a porter, and again "No, sir," was the response—when I exclaimed, in despair almost, "a laborer? Sir, I will work at my wages. Wages is not my object—I must have employ, and I want to be useful, in business." These last remarks attracted their attention; and in the end I was hired as a laborer in the basement and subcellar at a very low pay, scarcely enough to keep body and soul together. In the basement and subcellar

I soon attracted the attention of the counting-house and chief clerk. I saved enough for my employers in little things wasted to pay my wages ten times over, and they soon found it out. I did not let any person about commit petty larcenies, without remonstrance and threats of exposure, and real exposure if remonstrance would not do. I did not ask for any ten hour law. If I was wanted at 3 A. M., I never growled, but told everybody to go home, "and I will see everything right." I loaded off at daybreak packages for the morning boats, or carried them myself. In short, I soon became indispensable to my employers, and I rose, and rose, until I became head of the house, with money enough, as you see, to give me any luxury or any position a mercantile man may desire for himself and children in this great city.

For the New England Farmer.

THE PLUM.

Many accounts of the failure of the plum crop have appeared in agricultural papers from various localities within a few years, and many methods of destroying the curculio or preventing their ravages, have been suggested. In many instances, the whole product of the trees drop prematurely, and flowering profusely in spring is no certain indication of an abundant harvest. In this immediate vicinity the plum has been nearly as productive as any other kind of fruit. For several years the curculio has not attacked them so generally, and many trees are now laden with fruit so as to require propping in order to prevent breaking down. The greatest obstacle in growing the fruit here is the rotting on the tree before ripening; this is the case with the Washington, Imperial Gage, and some others; many kinds are not affected in this way.

The plum is readily propagated by grafting or budding, and makes a rapid growth. I measured one shoot from a scion, which I set a few years since, which grew six feet six inches in one season; five feet is not an uncommon growth. The plum should be grafted as early as the season will admit, although it will succeed much later than the cherry. I have sometimes put in scions from the first to the middle of May which grew readily: the first part of April is perhaps the most proper time however.—The wild species, which grows abundantly in New York, and many other places, makes a good stock on which to engraft the finer varieties. There are many of these trees in this region which have been obtained from other places; they seldom produce any fruit here, and when they do, it is nearly worthless. I have grafted many of them which yield an abundance of fruit of superior varieties. The beach plum, which is found on the sea-shore of this State in various places, grows vigorously in the midst of drifting sand and the spray of the ocean, it has been said, will not succeed in the interior; it has occurred to me that applying salt in proper quantity might prove a remedy. O. V. Hills.

Leominster, 1855.

Remarks.—There is a single specimen of the beach or sand plum, *Prunus maratima*, near our residence at Concord, which grows vigorously, but is visited so much by children that no fruit ripens if it sets.

A MORNING AT NAHANT.

A few days since, upon the invitation of Mr. Tudor, we passed the morning at his place, and looked at his gardens, trees, fences and means of manuring and irrigation, and of his manner of cultivation.

Nahant is on the edge of Boston harbor, six or eight miles from the city, and connected with the main land at Lynn by a mere sand-beach. It extends into the sea in a south-easterly direction, is quite narrow—not over half a mile in width, we should think, where Mr. Tudor's cultivated grounds are situated—and receiving the full sweep of the easterly winds, which carry the salt spray half way to the opposite shore. The soil, generally, is thin, and rocks protrude everywhere. On the easterly side they stand in their naked majesty, where they have stood and breasted the battling waves through many decades of passing time. The promontory is rock-bound at every point, and probably was at some time as bare of soil as the rocks which stand at the base of the banks and receive the first shock of the ever-returning waters.

In such a poverty of soil, and with such visitations of fierce winds and salt water, it may well be conceived that vegetation would be slow, meagre, and of the hardiest kind. Yet, in such a place, *Science* and *Industry* have triumphed over every obstacle, and made the almost barren rock to blossom as the rose! Fields of corn and waving grain, trees of various climes, fruits, flowers, shrubbery and rich lawns, now meet the eye, where only desolation held sway but a few years ago.

Mr. Tudor found that trees, even those of a hardy character, would not grow, or scarcely live, swept, twisted, and coated by the salt carried in the sea vapor upon the powerful ocean winds, and he set himself to work to protect them. In this isolated position he had the grand and imposing elements of nature around him; Neptune held his trident upon the rocks and upon the sounding sea; but nearer the hearth-stone he wanted other deities, Flora and Pomona,

"And wood-nymphs decked with daisies trim."

These he found could not be had without an amelioration of the climate. Cold winds, surcharged with acrid salts, must be kept out, while soft suns and gentle airs must be admitted to the plants. In order to effect this, he resorted to an expedient, perhaps never before employed, and one which has so far *changed the climate* of the locality, as to enable him to rear tender plants and produce fruits, scarcely attainable in sheltered spots several miles in the interior, or one or two degrees further south.

Around one garden he has erected fences from ten to twenty feet in height, made of common laths nailed to strong cross-pieces, and leaving interstices about two inches in width between them. Around another garden the fence is brick, the

brick being made of only half the usual thickness; the first five or six feet in height of the fence is close, and the upper portion full of holes about two inches square. These fences so break and sift the winds as to deprive them of all power either of straining the trees, or of conveying the salt vapors to their foliage. At the same time the temperature is so changed, that several degrees of difference in the heat and cold may be noticed between the inside and outside of the enclosure. Frost penetrates three or four times as low into the ground outside as it does inside. In a cold day, there is a genial, summer-like atmosphere in the garden, when out of it, November winds may howl along the coast with icy breath.

Under this change of temperature Mr. Tudor has succeeded in clothing the surface with rich varieties of plants, and giving all that part of the promontory a most attractive appearance. Pear trees, only transplanted four years, were above the highest fences, and loaded with fruit. There we saw several of the Northern Spy apple trees fruited in perfection, tender raspberries, and nearly all fruits found in our best gardens. In all, Mr. Tudor has set *ten thousand* trees among the rocks and on the handful of soil which he could come at where he desired to plant; so that now the strong currents being broken and evaporation in a measure retarded, vegetation will spring into life spontaneously, and trees of a less hardy character than those he commenced with will succeed. He has given a new aspect to the scenery, and a new health to the place. Thousands who throng there for gay dissipation or for the invigorating breezes from the sea, are grateful for the shade of his trees, and for the rich landscape which is so admirably contrasted with the expanse of water and the rough rocks which line the shores, or still lift their heads in the cultivated grounds. So *Science* and *Industry* have covered desolation with beauty, and crowned the efforts of their votary with *Success!* His noble example is widely felt, and other cultivators take the hint from his operations, and break the wind from their gardens by means of shrubbery or of fences, and thus are enabled to rear plants which it would otherwise be impossible to do, and this will be the means of introducing earlier and a greater variety of fruits, throughout New England.

Mr. Tudor has distinguished himself no less in another branch of industry, than by his horticultural skill. He was the first person to introduce a business which now employs some seven or eight million dollars of capital, and for which he was laughed at by all the *doubters* in the land. He shipped the first cargo of ice ever exported from this country, in the year 1805. It was shipped to the West Indies, and he went with it. The enterprise was not a profitable one, there being no suitable places to store it, and its efficacy in sickness, or its value as a luxury, not being appreciated. In 1834, Mr. Tudor commenced realizing a profit from the business, but two years earlier he shipped from Boston 4,352 tons.

Mr. Tudor's efforts are a practical illustration of what industry and perseverance may accomplish, especially when aided by the application of science. The pleasure of our visit was increased by the presence of His Excellency the Governor of the Commonwealth, whose own grounds we had previously visited, and found stocked with some nine or ten hundred fruit trees, and embracing most of the best fruits produced in our climate. The day, thus spent, was a most agreeable and profitable one. Mr. Tudor has proved a public benefactor in several ways, and while he has our hearty commendations, we are confident he has those of the public at large.

WAKEFULNESS—CAUSE AND REMEDY.

Editor of the Rural:—Many persons of nervous temperament,—hypochondriacs with uneasy stomachs, from the use of too much rich and highly-seasoned food, knick-nacks, or tea and coffee,—the thinkers, inventors, authors, and those who have domestic or other troubles pressing on the brain; in fact all who are not of mere animal construction and of redundant health, are subject more or less to *wakefulness*, and a difficulty of obtaining that repose necessary to reinvigorate the system, after the labor and cares of the day. It becomes a disease, and sometimes as distressing as "the snakes in the boots" of the inebriate.

What is more tedious and enervating than the difficulty of procuring sleep, or of waking and waiting for the sonorous bell of the clerk of time, and after hopelessly trusting it will proclaim the approach of day, hearing him bluntly tell all he knows by striking *twelve?* Then, the melancholy hours passed in solitude and thick-coming thoughts of real or anticipated troubles and cares, are painful is the extreme, and disorder the whole vitality of the animal machine.

Many devices have been suggested to bewilder the mind and induce the lethean forgetfulness of sleep. Counting up to hundreds—multplying two or more numbers in the mind and obtaining the result—calling over the names of acquaintances, or the counties in the State, &c. The most effective course is to jump out of bed and commence walking in the dark, exercising your judgment in avoiding and in finding objects about the room, taking no heed what the matter is; its effect is to break the chain of thought — dispel vapors — equalize the circulation and disperse the electricity of the body, which the bed, being a non-conductor, cannot do. The antagonism of the warm bed and cold air gives a shock to the nervous system, acting like a cold bath, which it is, only air instead of water. On getting into bed a pleasant glow is felt, and in nine cases out of ten the brooding nightmare of wakefulness is driven to the land of Nod, and forgetfulness and refreshing sleep ensue.

No one can take cold when every part is equally exposed; the most delicate constitution may run naked a mile in the greatest rain or snow storm

and if they do not freeze, no ill effects will follow. It is partial exposure that deranges the system and creates the colds, lung complaints and rheumatisms of life. Baptism by immersion is a case in point and the thousand accidents by flood and storm; while a spoonful of water in the shoe, or damp feet, or sitting by a cracked window-light, gives a cold that costs life. The only precaution is to keep moving; exercise and motion and a will, can carry the person safely through almost any exposure.

It is a simple experiment, and the fees for advice —gratis.—*Rural New-Yorker.*

For the New England Farmer.

TASTE IN RURAL AFFAIRS.

To render the country tolerable to a resident who makes it his home throughout the year, he should take an interest in a garden, especially a fruit-garden. Flowers and vegetables are transient; they cannot in their nature excite that interest that new and rare kinds of fruit trees do when coming into bearing. In a fruit-garden or orchard, every additional year gives to it some new phase or lends to it some new enchantment or value. And besides the anticipated pleasures which are awakened from year to year, there is the real substantial delight of gathering and eating fruit from your own trees, rendered dear to you from the care which you have bestowed upon them. These pleasures are among the purest and most enduring known to civilization.

To a man of sense and reflection, the real poetry of life is in the country. The monotony of city life is proverbial. Brick and stone, human faces and merchandise, is the sum of all that can be seen. Public trees are rare, and private ones tremble lest the invigorating sun another season shall be forever shut out, or the speculator's axe laid at their roots. The seasons, too, present but little change, as everything is artificial. But the country exhibits an infinite variety of landscape, and at every step we take, new objects arise, and the vision perpetually changes. Spring and autumn present marked contrasts, and summer and winter possess hardly a shade of resemblance. But to the lover of nature they differ but little in interest and beauty, as his heart recognizes their necessity, and his eye surveys them with veneration.

In proportion to our knowledge of and taste in horticulture is our pleasure. An acquaintance with its kindred sciences—chemistry, geology and mineralogy—adds great interest to the subject. The tasteful gardener not only wishes to make his garden yield well, but he seeks to arrange his avenues and plant his trees in accordance with economy and landscape beauty. A variety of soil is fitted for a variety of trees. Some need a strong soil, others will flourish on a light. The Williams apple and the Roxbury Russet, for instance, require the former; the latter will answer for peach trees, and for some apple trees, among which is the Baldwin. So also in planting forest trees, a contrast in foliage and shape is pleasing to the eye. The Abele near a purple-leaved Beech, the European Sycamore with Elms, the Tulip tree and the Alantus, look finely together, when trees are not required to be matched or planted in couples, for some particular effect, for instance, in forming a vista; and even then they could be alternated in couples. Perhaps there is no vocation in which so great a variety of taste can be displayed as the landscape gardener's; and this is why no definite rules can be laid down for its development. The position, extent and surface of the ground, must in all cases suggest the style of embellishment.

But the idea that taste in the arrangement of the avenues, embankments and trees around a house greatly enhances the satisfaction of its owner, never seems to enter the mind of some who go to much expense on their estate. If you make suggestions of improvement, they will perhaps think them "first-rate," and wish they had adopted them. They seem to be devoid of any kind of taste upon this subject, yet admire what others can do. They appear to look to profit; but profit is not necessarily opposed to good taste. If they wish to set out a particular tree, they put it where there is the most room to spare, regardless of its effect on the landscape. Pig-pens, hen-coops and dog-houses are set near the dwelling, in defiance of all arrangement, for the sake of having them "handy." And throughout the entire gardens of such tasteless individuals the "law of disorder" reigns supreme.

The villages of the present day are of a different character from those which our forefathers founded, and in which they lived and flourished. In the primitive times of New England, a grist-mill situated on a stream in some valley, furnished the nucleus of many a flourishing village, and little or no regard was paid to embellishment. Instead of planting trees, the mission of the people seemed to be to cut them down. But villages now are spread over the broad swells and extended plains, and where the proud forest trees were once laid low by the axe of the pioneer, the hand of taste seeks to reinstate them. Since New England has become populous and thriving, we covet retirement away from the thoroughfares of business; and instead of erecting dwellings within ten or fifteen feet of the ruts of the road, with a cherry tree and lilach bush between, we place them remote from noise and dust, and by a discriminating arrangement of flowers, shrubbery and trees, lend enchantment to their view. This is leaving a "mark in the world" which posterity might well emulate. D. W. L.

West Medford, Sept., 1855.

For the New England Farmer.

THE DROUGHT.

It is a common thing to hear it said, "I never knew it so dry before." This was often heard in the season of 1854. Whether it has been heard the present, I will not say—but this I can say, that I have not known the time when it could be uttered with more propriety. Vegetables that were growing luxuriantly on the first of the month, are now shrivelled and fallen—I fear to rise no more. Corn that had not then attained its growth, is now hesitating to fill out. The only thing that gives indications of improved condition is the potato—this is better than was feared—the rot *is stayed* or not gone ahead.—Whether it was checked by the want of moisture, or the cold nights that we had, or some other cause, it is certainly less than there was reason to apprehend. Although there have been more numerous rains, since the first of April, than in most seasons—still I do not remember the season, when the quantity taken together has been so little. The consequence is, the springs are very low indeed. ESSEX.

Sept. 10, 1855.

STUDY OF AGRICULTURE.

We have inserted in the appropriate department of this paper, and shall transfer it to the columns of the monthly *Farmer*, the advertisement of Prof. Nash, in relation to a more thorough pursuit of agriculture in Amherst College, than has yet been afforded in New England. It is encouraging to notice this movement on the part of the Professor and the College, as a way will now be opened to pursue the subject with success.

The particular attention of our young friend, "B. T. R.," of Newburg, Orange Co., N. Y., is called to this advertisement, and the remarks which follow. Prof. Nash says:

"The young men will have access to the college library and cabinets, the latter of which will be of great value to them, as also to several able and most valuable courses of lectures. It is our purpose to attend these lectures with them, to bring to the recitation room the scientific facts there demonstrated, to dwell upon them in a way calculated to aid the memory in retaining them, and to point out, more carefully than a rapid lecturer would be likely to do, their useful applications. With such aids as the college offers, we think that, without boasting, we may promise as rich privileges as can be enjoyed anywhere.

Lest there should be a lingering doubt of the readiness of the college to extend its privileges as above stated, we will here say, what we know to be true, that all the gentlemen connected with its Instruction—the President, Ex-President Hitchcock, and the entire Faculty—are moved by the most liberal views in this matter. With no relaxation in the field of Classical and General Literature, they deem that the facilities of the Institution for diffusing useful science may be extended to young men, who wish to attend for a less time than four years, perhaps but a few months; and they are sincerely desirous of so extending them; and accordingly have made such arrangements that the student of twelve, six, or even three months' attendance, may enjoy as rich privileges for the time, as those who prosecute a four years' course."

For the New England Farmer.

"STATE OF MAINE POTATO."

Mr. Editor:—I am happy to find an *endorser* for the *State of Maine* potato, so experienced, as your correspondent from "Newton Centre" professes to be, having cultivated the present season, as he says, "not less than seventy-five varieties." This is indeed a large experience, demanding much discrimination in the different sorts. He expresses a doubt whether I have ever seen "the true State of Maine potato." It may be that I have not. My remark was not made so much on my own observation,—as on that of "the best observers"—such as the President of the Massachusetts Horticultural Society, who is not only a discriminating observer, but a most reliable man, in all respects—none more so among us.

If my recollection is right, a few years since, I saw remarks from the same correspondent, speaking disparagingly of the "Eppes Sweeting," or "Danvers Winter Sweet," as unworthy of cultivation. I know that what he then said about this apple is a mistake. I therefore have less confidence in his high-wrought encomiums of this variety of potato. I admit, that I have heard it highly extolled by others, who had bought a few for seed, at extravagant prices, and were cultivating them with a view to get their money back again. How far your Newton correspondent may be swayed by any such consideration, I have not the means of determining.

South Danvers.

Sept. 15, 1855.

For the New England Farmer.

HIGH PRICES OF FLOUR AND GRAIN.

Mr. Editor:—In some of the papers I have noticed of late movements by the citizens for supplying themselves with the necessaries of life, by combinations in purchasing. This movement appears to me as one worthy of all commendation, and easily adopted by mechanics very generally, as well as by others. If there is any truth in the different newspaper statements for the past two months, there is no good reason—not one—why the article of flour should command ten or thirteen dollars per barrel. There cannot be any other reason, than that the article is in the hands, and managed by speculators; and it is easy for the community to see how this is done. It is a most shameful piece of imposition upon the public—more particularly the laboring part—to call it by no milder name. With the whole country—according to public accounts—overflowing with the staff of life, and to be obliged to pay 10 or 13 dollars a barrel for flour, is an anomaly and an outrageous imposition. I would say to the mechanics and laboring class of the people, *combine*, let combination meet combination—if this shameful business of speculation in the very essentials of life cannot be stopped in any other way. You have the means of relief partially, if not wholly, in your own hands, and do not fear no use it, even if you gain but little thereby to your purses. Provided this species of *crime* can be broken up, a great good will be accomplished, not only to yourselves and families, but to the community at large. The Union Stores which have been established throughout the different towns in New England, within the past three years, have been a great benefit to the laboring classes, there cannot be any question about it; thousands and tens of thousands of dollars have been saved to your pockets within the above time, by this class of stores. Why not a community, or a town, supply themselves, on the same principle, with flour and grain? You can do it, and if judiciously managed, it is easily accomplished, and with little trouble or expense to yourselves, except for the first cost of the articles. In this movement, you would have the sympathy and good wishes of the larger part of the people. This alone is a great deal. Let ten, twenty, fifty or a hundred families in a town unite and put into a general fund for the purchase of flour and grain. You can easily find a person to do the rest of the work for you, and who will do it well, too, for a very small commission. To say the least, this subject is worthy of more attention than it has received from this class of our people; if they know their power, they have not used it. "But I say unto you fear not," try it, and note results. Even if you fail in the attempt, it will not be the first time people have failed in a good cause, and perhaps some wise and valuable lessons will be learned thereby.

"Be sure you are right—then fear not to go ahead," and God bless you. N. Q. T.

East Weymouth, Sept. 11th, 1855.

THE FARMER'S LIFE FOR ME.

BY HENETTE.

Wealth may boast her hoarded treasures,
Pride no joy like her's may see,
Dissipation vaunt her pleasures,
Yet the farmer's life is the life for me—
With its freedom blest,
From the stern unrest
Of the crowded marts of life,
With its rosy health,
What a mine of wealth!
With its quiet unmarred by strife.

Toil it hath, yet with it there is
Sunlight of a willing mind,
And the farmer's home so fair is,
None a fairer e'er can find—
With its glowing hearth,
With its heartfelt mirth,
When the winter fire burns bright;
O, the farmer's cot
Is a cosy spot
In a chill December's night.

His are Summer's richest treasures,
All her wealth of fruit and flowers,
All the intellectual pleasures
Of her bright instructive hours,—
His the golden gleam
Of the sunset beam,
And the mild majestic night;
His the first soft ray
Of the rising day,
And the dew-drops sheen and bright.

Far from heartless Fashion's empire,
Far from Mammon's haunts of sin,
From the dens of Dissipation,
And the crowded city's din—
He may safely rest,
O, how truly blest,
With the friends he holds most dear—
And the great world's noise
Cannot mar his joys,
In his calm, secluded sphere.

Michigan Farmer.

For the New England Farmer.

HARVESTING CORN.

MR. EDITOR:—As the time is close at hand for the farmer to be devising and adopting the best method by which his corn crops may be secured in the best manner and to the best advantage, I thought a few words written upon the subject might not come amiss, and be acceptable too.

It is well known that there are many and various ways pursued by farmers in harvesting this, his most important crop; some take one way and some another, and therefore it would be well to adopt the best plan both as regards the grain and the stover.

In a communication in your paper of August 25, a writer, who signs himself "E. C. P.," says, "all good farmers will cut up their corn directly after it is out of the milk, and 'stock it' to dry; then, after a reasonable time will husk it and put the stover away in the barn, where his stock in the winter will prefer it to the best English hay." Now with all due deference to his opinion, I must say that all good farmers will *not* pursue such a course in the harvesting of their corn for good reasons: for who does not know that corn so treated would result in the shrivelling of the grain in a great degree, and consequently in the loss of its vitality? If "E. C. P." should cut up his popping corn in the manner he speaks of, I rather think that the portion of his corn that would "pop" would be small indeed, because it would be deficient in that oleaginous substance he so highly extols—the nutritive matter that forms the "unleavened bread."

The best way for farmers to manage their corn, which is usually done by the most of them, is, about the second week in September, when the tassels are dry and crumpy, to cut off the tops, and lay them in the hills so they will not touch the ground, then after having dried one or two days, tie them up in small bundles, and stand them up firmly against the corn and let them stand for a number of days if the weather will permit, and then put away in the barn. The tops of corn secured in this way makes good feed for cows in the winter, and is no small item in their keeping. Although it is valuable for the purpose of feeding stock, it will not do for the sake of the stover to sacrifice the corn, as no farmer will do that, unless he goes on the principle of "robbing Peter to pay Paul." Every one that raises corn, will of course, secure it as he can best, and as shall result in the best good of the whole. J. UNDERWOOD.

Lexington, Mass., 1855.

APPLES—WINTER KEEPING, ETC.

PROF. J. J. MAPES:—Sir,—A constant and interested reader of the *Working Farmer* would be pleased to see appear in the columns of the September number, if possible, an article upon the Sweating of Apples, describing the process, &c. Also the best method of packing fruit for shipping.

Truly yours, J. C. K.

Dunstable, August 9th, 1855.

In reply to the above we would state, that the finer class of fruit should be gathered by hand, and so placed in barrels, and not poured from a basket, as every apple slightly indented will be sure to decay. When apples are intended for shipment, another process seems necessary.

Apples contain a large amount of water, part of which should be got rid of, when intended for shipment, and this may be done without any alteration in the figure or appearance of the apple, provided that they receive no indentations or bruises.

They must be placed in heaps, when a slight sweating will occur, which will cause a portion of the water to exude to their surfaces and dry off. After a short time a second sweating will occur. They should then be thoroughly dried, placed in barrels by hand, and shipped. Apples so treated, if they arrive at their port of destination before the third sweating takes place, will be in perfect order; but if a single apple in a barrel be dented or bruised, it will cause the whole to decay or partially decay, on ship-board. This third sweating usually occurs in about six weeks after the second sweating. For home consumption, apples should be taken from the tree as late as the weather will permit, and should be placed in the final place for winter keeping, at once. If put on the north side of a house with board covering, and suffered to remain until the cold becomes very severe, they may then be moved in

dry, clear weather, and placed where they are intended to be kept; and if in barrels, these should be kept as dark as possible. Some have packed apples in charcoal dust, others in alternate layers, with straw and a layer of earth, in the same manner as for potatoes. Some place them in cold, dry cellars, in heaps, covered with straw; but all these methods, while they may sometimes succeed, invariably abstract so much of the flavor from the apples as to lessen their real value. The same mistake is often made in packing grapes in cotton—and while they maintain their figure and look well, the aroma is abstracted and absorbed by the cotton.

The plan given above for preparing apples for shipping, first made public by R. L. Pell, Esq., is the most dependable.—*Working Farmer.*

For the New England Farmer.

POTATO CROP.

Mr. Editor:—In your paper of September 1st appears an article from one who signs himself "South Danvers," bearing the title that I have selected. He says, "of the new varieties of potatoes that have been tried in this vicinity, the present season, there is none so highly praised as Davis' Seedling; side by side with other varieties this escapes disease entirely. Some pretend to crack up the 'State of Maine' potato—but the best observers say it is a miserable concern—entirely unworthy of regard."

Now I agree with him exactly in what he says of the Davis' Seedling; it is a very fine variety, deserving of extensive cultivation—very productive, hardy, and a good-flavored sort. In regard to what he has to say about the *State of Maine*, the reverse is eminently true; the statement he has made is calculated to mislead the public in respect to this splendid variety of potato. It is, in the first place, very productive, yielding this year a bushel of handsome potatoes from eighteen hills; it is early, being nearly as early as the White Chenango, which is the favorite early sort of the market gardeners; it is very handsome, being perfectly white outside and inside; as for its eating qualites, it is unsurpassed by any variety that I am acquainted with, and I think I may, without boasting, lay claim to some knowledge of potatoes, having for some years felt a great interest in the potato, and planting every named sort that I could get, besides raising a great many from seed, so that my list numbers, this year, not less than seventy-five varieties. It is not surpassed even by the famous Carter potato, which has such a high reputation, and if your correspondent will produce a potato equal to the State of Maine in *every respect*, I will send him as many potatoes as he will use for five years. It is not liable to rot, having never found but few rotten potatoes among that sort. I am inclined to think that "South Danvers" has never seen the true State of Maine potato, or is radically mistaken in regard to it.

James F. C. Hyde.

Newton Centre, Sept. 6, 1855.

The History of Butter.—From the various statements in history, it may be safely concluded that the discovery of butter is attributable neither to the Greeks nor Romans, but that the former were made acquainted with it by the Scythians, Thracians, and Prygians, and the latter by the people of Germany. It appears, says Beckman, that when they had learned the art of making it, they employed it only as an ointment in their baths, and particularly as a medicine. It is never mentioned by Galen and others as food, though they have spoken of it as applicable to other purposes. No notice is taken of it by Apicius, nor is there anything said in that respect by the authors who treat on agriculture, though they have given accurate information regarding milk, cheese, and oil. This may be easily accounted for by the fact, that the ancients were entirely accustomed to the use of good oil. In like manner, butter is very little employed at the present day in Italy, Spain, Portugal, and the southern parts of France, but is sold in the apothecaries' shops for medical purposes. During the ages of paganism butter appears to have been very scarce in Norway; mention is made by historians of a present of butter so large that a man could not carry it, and which was considered a very respectable gift.—*Farmer's Magazine.*

For the New England Farmer.

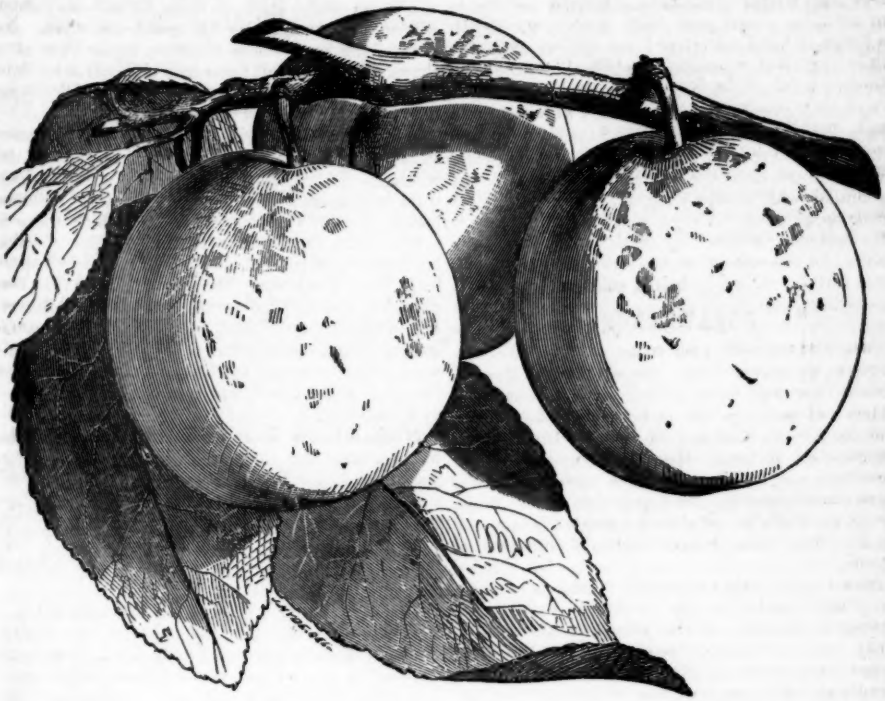
CONSOLATION FIT FOR AN EMPEROR.

In the memoirs written by the celebrated Emperor Khang-hi, the following passage occurs:

"I was walking on the first day of the sixth moon, in some fields where rice was sown, which was not expected to yield its harvest till the ninth. I happened to notice a rice plant that had already come into ear. It rose above all the rest, and was already ripe. I had it gathered and brought to me. The grain was very fine and full, and I was induced to keep it for an experiment, and to see whether it would retain, on the following year, this precocity, and in fact it did. All the plants that proceeded from it, came into ear before the ordinary time, and yielded their harvest in the sixth moon. Every year has multiplied the product of the preceding, and now for thirty years it has been the rice served on my table. The grain is long and of rather a reddish color, but of a sweet perfume and very pleasant flavor. It has been named Ya-mi, or "Imperial rice," because it was in my gardens that it was first cultivated. It is the only kind that can ripen north of the great wall, where the cold begins very early and ends very late; but in the province, of the South, where the climate is milder, and the soil more fertile, it is easy to obtain two harvests a year from it. And it is a sweet consolation to me, to have procured this advantage for my people."—*Huc's Chinese Empire.*

Huc remarks, that this species of rice succeeds admirably in dry climates, and has no need, like common rice, of perpetual irrigation; and that it is not the fault of the missionaries if it has not long since been acclimated in France.

Apples, Pears and Plums.—Our acknowledgments are due Mr. William Wheeler, of Acton, for a basket of fine Porter apples, and another of Bartlett pears; to E. W. Bull, Esq., of Concord, for fine specimens of the Washington Red Gage, and other plums, and to his Excellency Gov. Gardner, for a liberal basket of the Tyson pear, grown upon the first tree producing that fruit in New England.



THE WASHINGTON PLUM.

We give above a most faithful representation of this excellent plum. The fruit represented grew in the grounds of E. W. BULL, Esq., of Concord, the originator of the celebrated "Concord Grape." It is part of a branch containing five plums within the space of six inches, and weighing 11½ ounces, or nearly 2½ ounces each. The drawing was designed by Mr. JOHN N. HYDE, a young artist of great promise, and the engraving executed by Messrs. SMITH & PEARSON, both parties having their place of business at 46 Court Street, Boston. The connoisseur will find this illustration one of great truth and beauty, and it is our intention that he shall frequently find our columns enriched with similar beautiful specimens of the skill of our artists.

The description of the plum we give from DOWNING:

The Washington undoubtedly stands higher in general estimation in this country, than any other plum. Although not equal to the Green Gage, and two or three others, in high flavor, yet its great size, its beauty, and the vigor and hardiness of the tree, are qualities which have brought this noble fruit into notice everywhere. The parent tree grew originally on Delancey's farm, on the east side of the Bowery, New York, but being grafted with another sort, escaped notice, until a *sucker* from it, planted by Mr. Bolmar, a merchant in Chatham Street, came into bearing about the year 1818, and attacted universal attention by the remarkable beauty and size of the fruit. In 1821, this sort was first sent to the Horticultural Society of London, by the late Dr. Hosack, and it now ranks as first in nearly all the European collections.

The Washington has remarkably large, broad, crumpled and glossy foliage, is a strong grower, and forms a handsome round head. Like several other varieties of plum, the fruit of this, especially in sandy soils, does not attain its full perfection until the tree has borne for several years. We have measured them very often six inches in circumference, and once from Mr. Bolmar's original tree, seven and a quarter inches.

Wood light brown downy. Fruit of the largest size, roundish-oval, with an obscure suture, except near the stalk. Skin dull yellow, with faint marblings of green, but when well ripened, deep yellow with a pale crimson blush or dots. Stalk scarcely three-fourths of an inch long, a little downy, set in a shallow, wide hollow. Flesh yellow, firm, very sweet and luscious, separating freely from the stone. Stone pointed at each end. Ripens from about the middle to the last of August.

VERMONT STATE AGRICULTURAL FAIR.

Rutland, Vt., Sept. 11—6 *A. M.*

The exhibition grounds are located on Grove Street, about a quarter of a mile north of the depot. They comprise about thirty acres, and are admirably calculated for the purpose to which they have been devoted. On a portion of the lot near the street is a beautiful grove of maples, beneath whose grateful shade Floral and Mechanic Halls have been erected. These halls were improvised for the occasion, being built of rough boards, Floral Hall being very neatly decorated with evergreens, &c., presenting quite a rustic appearance. A portion of the cattle pens are also included within the shady area. The race-course, for the exhibition and trial of horses, is a little further on, and is half a mile in length. A fine gallery, capable of seating a large concourse of spectators, fronts the course, and affords a fine view of the contests of the turf.

Up to five o'clock last evening there had been entered for exhibition in the equine department, ninety-two geldings and mares, thirty-one Hamiltonians, fifty-six Sherman Morgan or Black Hawk stallions, six Bullrush Morgans, thirty-two Woodbury Morgans, and twenty-three pairs of matched horses—total two hundred and sixty-four. Some of these animals are of almost matchless beauty and speed. The Black Hawk blood predominates, and if elegance of outline, grace of action and spirited movements can make one class of animals favorites more than another, surely the Black Hawk horses are not undeserving of the partiality shown them. There are, of course, beautiful horses of other breeds on the ground, which are dangerous rivals, but for myself I must confess to quite a partiality for the light, glossy black steeds of the Black Hawk breed.

Among the fast horses entered are the "Michigan Boy," "Flying Morgan," and "St. Lawrence," whose names are quoted in sporting circles. There was a good display of trotting horses on the course yesterday afternoon, and the attendance of spectators was quite large, some fifteen hundred to two thousand being present, many of whom were ladies. Major John S. Dunlap is Marshal of the field. Some of the trotting was quite smart, and the excitement in this part of the show is fast increasing.

In the neat stock department there have been entered 19 yokes of working oxen; 9 yokes of steers; 6 cows and three bulls of Hereford stock; 3 native cows; 5 cows and 2 bulls, Ayrshire; 12 cows and 10 bulls, Devon; 6 bulls and nine cows, Durham; and 28 cows and seven bulls, mixed breeds. All these cattle are fine specimens of Vermont breeding and keeping. I have not seen an ill-looking animal among them, while many are very superior; and there is good reason for it, for nowhere is there better grazing than on the verdant hills of Vermont, while the breeds are the same that bear the palm throughout New England.

Of sheep, there is, of course, a large collection, for Vermont is almost as celebrated for her flocks and herds as for her horses. There are on exhibition three pens, containing 25 ewes each of Spanish Merino stock, besides 32 bucks and 118 ewes and lambs of the same breed; 17 bucks and 78 ewes and lambs of the French Merino variety; 81 long wool sheep, mostly Leicester and Cotswold; and 28 fine wool sheep of mixed blood. These sheep are outwardly a most unlovely looking set of animals, their shaggy coatings being covered with a thick layer of dirt, which gives them a forbidding appearance; but upon separating the matted locks, a soft and snowy-white staple is brought to view, which will no doubt some day be transferred from the back of the poor sheep to adorn, in the form of a shawl, the person of some fair lady, or, made into broadcloth, will be sported by "genteel" young men on fashionable promenades.

A glance at Mechanics' Hall yesterday afternoon showed a goodly array of useful inventions in the mechanic arts, embracing not only the useful agricultural implements, but some fine specimens (mantels tablets, &c.) of Vermont marble, of which there is a quarry in the western part of this town; also handsome specimens of natural and marbleized slate, from West Castleton. The natural slate was displayed in a variety of forms, such as sinks, boxes, &c., while the marbleized was wrought into ornamental tables, mantels, &c. They were quite handsome, but the native marbles, of course, outshone them. I noticed an amusing contrivance attached to a bedstead, to facilitate early rising. An ordinary alarm clock is appended to the headboard, which arouses the sleeper at the appointed hour, and allows him a few minutes to "open his peepers" and get out of bed; but, if he is sluggish and delays this unpleasant operation too long, a secret spring is moved, and presto! the astonished sleeper feels the bed settle sideway under him, and he is rolled incontinently upon the floor!

Rutland, Sept. 12.

To-day there is a great accession to the number of people in attendance on the Fair, and throngs are arriving by every train and by private conveyance. The town wears truly a holiday appearance. The day is clear, although warm, and nothing interposes to mar the pleasure of the occasion. Visiters began to throng the Fair grounds at an early hour, paying thenty-five cents for admission, and by noon there were fully four thousand people present.

I have omitted to speak of the display of articles in Floral Hall, which is devoted to fruit and ornamental articles, furnished by the ladies, in the hope that it would fill up with a class of specimens commensurate with the occasion. But I have been disappointed. There are but three or four lots of ordinary fruit, and although the ladies have contributed some handsome fancy articles and a few crayons, most of the articles are scarcely worthy of notice; consisting of daguerreotypes and shop goods. Any of the county shows in Massachusetts would be ashamed of such a display of fruit, and the ladies "wouldn't begin" unless they could do better in articles of taste and elegance.

I am sadly disappointed, too, in the agricultural department. A one-horse wagon could contain all the vegetables shown. Of butter, and cheese, also, for which Vermont has much celebrity, there were not more than a dozen specimens of each. I expected to see a sight in these departments to "tell of." But these Vermonters think so much of horses, sheep and cattle, that other things stand a poor chance at their fairs. The same may be said of the spectators. Almost all flock to the race course to see the horses, scarcely deigning to look at the cattle or sheep, although Floral and Mechanics' Halls have a few visitors. The paucity of the above departments, however, probably is not owing to a lack of material, but of interest. It ought not

so to be. Vermont, as everybody knows, can raise as good vegetables, and has as good dairies as any State in the Union.

I noticed in the sheep department this morning a fine lot of French merinos, exhibited by A. L. Bingham, of West Cornwall, Vt. There were about seventy of them, bucks, ewes and lambs, and as fine stock as one would wish to see. Some of the bucks which had missed one shearing had wool from two to five inches long, and a beautiful staple.

At 9½ o'clock, the horses entered for premium in the different classes were brought on to the field for inspection by the committees. A large concourse of people were in attendance, and the scene was a gay one, truly inspiriting to the lovers of equine display. Many fine animals were trotted on to the ground, and their good points set off to the best advantage. Just before the committees took their stations, the venerable Nathan Lounsbury, of Clarendon, aged one hundred and one years, rode over the course in a handsome barouche, and was heartily cheered by the spectators.

An exciting incident occurred during the exhibition upon the track of all the horses entered. It seems the owner of one of the horses which was attached to a gig, entrusted him to the care of an Irishman, who being disposed to exhibit his talents as a "whip," struck the nobler animal of the two a violent blow with his whip. The horse sprang forward, and Pat not being accustomed to trotting gigs, lost his balance and fell backward to the ground. The horse ran directly towards the stand, in front of which was a great crowd of men and women, scattering them in every direction. Directly in front of the stand the runaway came in contact with Mr. Maynard's carriage, overturning it instantly. Mr. Maynard was thrown out and barely escaped being trampled under foot by the now frantic animal. The horse was then caught, but another horse was "making tracks" on his own responsibility. Attached to Mr. Maynard's carriage was the beautiful Black Hawk, which has attracted so much admiration, during the Fair, and which is owned and kept by Mr. M., in Lowell, Mass. On this occasion he was driven by Mr. Crandall, of Brattleboro', who clung to the reins manfully, and was dragged several rods upon his back, when he was obliged to relinquish his hold. The horse then ran across the field, knocking down and running over a man, and injuring him very severely. He then came upon the track again, when the carriage was caught by a post, and was almost entirely demolished. With the fragments hanging about him, he again ran past the stand, and soon came in contact with another horse and sulky, (which with the most culpable negligence had been left alone by the driver,) and overturned it—of course starting its horse into a run. The Maynard horse was shortly after caught by the harness in a fence, and secured, while the other was caught by a man who had the boldness to seize him by the bridle as he ran past him. Considering the great crowd upon the ground at the time, it is truly wonderful that many were not severely injured.

We take the above account from the Boston *Journal*. The reporter uses a free pen in regard to some of the departments of the Exhibition. However, if their deficiencies are plainly pointed out, it may call attention to them, and cause them to be corrected in future. To make a show attractive and profitable, all the departments should be well represented.

THE PRODUCTION OF BARLEY.

It is a remarkable fact that we are still in uncertainty whether barley grows wild in the Old World; and if so, in what region this occurs. Even the authors of antiquity were at variance as to whence barley, as well as wheat, the grains chiefly used at that time, had been derived. It has been cultivated in Syria and Egypt for more than three thousand years, and it was not until after the Romans adopted the use of wheat bread that they fed this grain to their stock, as is practiced by the Spaniards and Italians at the present day. It is evidently a native of a warm climate, as it is known to be the most productive in a mild season; still its flexibility is so remarkable, that it will grow on the Hymalayas at an elevation of from 10,000 to 13,000 feet above the level of the sea, and mature in favorable seasons and situations on the Eastern Continent as far north as 72°.

The introduction of barley into the North American colonies may be traced back to the periods of their settlements. It was sown by Gosnold, together with other English grains, on Martha's Vineyard and the Elizabeth Islands, in 1602, and by the colonists of the "London Company," in Virginia, in 1611. By the year 1648, it was raised in abundance in that colony; but soon after its culture, was suffered to decline in consequence of the more profitable and increased production of tobacco.

Barley appears to have been cultivated in New Netherland as early as the year 1626, as samples of the harvest of that year, raised by the colonists of Manhattan Island, were sent to Holland, with other grains, as an evidence of their prosperity.

According to the records of the "Governor and Company of the Massachusetts Bay in New England," barley was introduced into that colony in 1629. In 1633 good crops were raised in Lynn.

In 1796 the chief agricultural product of the isle of Rhode Island was barley, considerable quantities of which were raised.

Barley has never been cultivated much in the United States, nor has it entered extensively into our foreign commerce, as we have been consumers rather than producers of this grain. It has been chiefly employed for malting and distillation, and also in considerable quantities as a substitute for sago or rice, after being hulled.

According to the census returns of 1840, the amount of barley raised in the United States, the year preceding, was 4,161,504 bushels; of 1853, 5,167,015 bushels; showing an increase of 1,005,511 bushels. The amount of the barley crop of the United States in 1853, may be estimated at 6,590,000 bushels; which at 75 cents per bushel, would be worth $4,875,000.

Broom Corn.—It is a singular omission in the United States census, that it does not give any statistics of the amount of broom corn raised in the country. In our own State hundreds upon hundreds of acres are appropriated to the cultivation of the desirable commodity. Broom corn never was stouter, nor a better crop than during the present year. It will soon be out.—*Albany Argus.*

NEW HAMPSHIRE STATE FAIR.

Wednesday—First Day.

The Sixth Annual Fair of the New Hampshire Agricultural Society commenced to-day, Wednesday, Sept. 12, at Manchester. The fair is held upon the "old rye field" where it has been held on former seasons. The same area of ground is enclosed as heretofore. The enclosure presents a fine appearance. Near the entrance is the business office, and the editor's room—a feature which all gentlemen connected with the Press know full well how to appreciate. The room is cool and airy. Ample accommodations are found. A long table well supplied with stationary, &c. Connected therewith is a refreshment room, where wholesome and substantial food may be found whenever the reporter is tired of driving the quill, or when he returns from the field, where the sun pours down its scorching rays. None better understand the wants of the editorial fraternity than the indefatigable secretary of the society, James O. Adams, Esq., who is himself well known as an editor. Suffice it to say, that, being seconded in his affairs by Frederick Smyth, Esq., the efficient Treasurer, the facilities for reporting are most admirable, and are duly appreciated by all the representatives of the press present.

Just within the entrance are two of Yale's large tents, one devoted to the display of fancy articles, the other to farming implements and the heavy articles of manufacture. Other tents are erected—one occupied by a representative from the establishment of a caterer well known to the Boston public, J. B. Smith, where the public can find a cup of coffee, not to be despised even by an Oriental. In the immediate vicinity are ample accommodations for feasting the hungry multitude expected tomorrow—the great day of the Exhibition.

Around the sides of the enclosure are ample stalls for horses, of which a large number are already entered; also pens for cattle. The stalls and pens are covered to protect the animals from the intolerable heat. Water carts pass along occasionally, and the animals are treated to a drink, for which we doubt not they are very grateful. Water is forced into hogsheads upon the ground by a hydraulic ram, from a brook which gurgles along at some distance from the field. The arrangements throughout are ample, and reflect much credit upon the committee of arrangements.

Tuesday—Second Day.

In the afternoon, at two o'clock, a procession was formed and escorted the Governor of the State, the orator of the day, the invited guests and officers of the society to the grounds. While the procession was *en route*, we took occasion to look at a couple of violins to which our attention was especially called. They were manufactured by Mr. J. H. Arey, a *farmer* of Boscawen, who has not only an exquisite taste for music, but great mechanical genius, as some beautiful inlaid work-boxes in the exhibition, the product of his leisure hours, fully testify. About a year since Mr. Arey having read of the *scientific* proportions of a Cremona violin, took it into his head to try his hand in making one; he did so, and it was sent to Boston to a music-dealer, who at once sold it, we believe, for some $30. Mr. Arey having heard of the sale, visited Boston, where he received the most flattering assurances of the worth of the instrument, from good judges, who urged him to give his whole attention to the manufacture. He has manufactured several since then on *rainy days*, and during his leisure moments, and they find a ready sale at from thirty to fifty dollars each. The gentleman, we learn, is not satisfied with his present attainments in the excellence of the manufacture, but means to make them equal to the Cremonas. He is about to establish himself at Concord. This is the way with Yankees.

The procession arrived upon the ground at two and a half o'clock. The area of a large radius was a sea of humanity, surging to and fro, each wave endeavoring to dash up to the stand. Occasionally a cry from the ladies told how severely they were moved about, without the least power of resistance.

The orator of the day, Hon. C. B. Haddock, late U. S. Minister to Portugal, was then introduced to the assembly by the President, Ex-Governor Baker.

The speaker commenced with a brief notice of agriculture under the Romans. The present state of agriculture was next spoken of, that it was now a science—a study. The old times had passed away. The next topic was the ennobling influence of agriculture. The farmer is the happiest of men. As farmers we should be satisfied—even as New Hampshire farmers we have reason to be satisfied, although our soil is sterile and hard to cultivate. There are other lands, beautiful lands, that are more inviting; but we have compensation for our hardship. The self-denial, the enterprise which compels the farmer to exert himself—the cold winter which fastens us to our firesides, developes the best instincts of the heart.

We have a great deal to do for agriculture; first, we need an institution for the benefit of agriculture. In this connection, the orator referred to the professions, and said that that which was at the foundation of all others was neglected. We needed an agricultural school—a national agricultural bureau. The inhabitants of Manchester were not more interested in manufacture than the farmers of New Hampshire in agriculture. He then referred to the true policy of New Hampshire—that it was manufacturing. There should be a mill upon every stream; agriculture would thrive thereby.

Horticulture was also a legitimate occupation for the gentlemen and ladies of New Hampshire. In this connection the orator pictured the loveliness, the beauty, the healthfulness of the occupation; it was *Paradise regained.* Horticulture was a teacher to the farmer—teaching him that a great deal could be produced from a small quantity of land.

A liberal education is not a disqualification for a farmer. A liberally educated man is a full grown man. It is not neccessary that he should be a college graduate, to be such. The book of nature was ever before him. No pursuit was better than farming to develop the powers of the mind.

In conclusion, he said that there was something beautiful in the thought that at last we might close our earthly existence upon the spot which we had cultivated and adorned. The address was one of great beauty, and had the rare merit of being brief.

At this stage of the proceedings there was an unqualified *political address*, by Mr. Botts, of Virginia!

Friday—Third Day.

The morning of Friday was beautifully clear and mild. A light fog lay in the valley of the Merri-

mac, but as the sun ascended the heavens, it disappeared, and at eight o'clock everything in nature was as beautiful as could be wished for the conclusion of the exhibition. At eight o'clock the trotting horses occupied the track. Also a large sized bull, with a rider upon his back, which went round the course in good time, but not very elegantly. Notwithstanding the crowd was so dense yesterday, there was a respectable attendance, and a call for tickets up to the hour of 1 P. M.

During the morning, we fell in company with G. W. Nesmith, Esq., of Franklin, formerly President of the Society, and obtained from him some information in regard to the manufacture of hosiery in that place. The manufactory was erected about a year since, and two hundred and fifty hands are now constantly employed in the mill, besides individuals in some five hundred families in the surrounding country. The machinery used is of American invention, and it manufactures an article very different from those produced by foreign looms. Four different colored threads are interwoven by a loom now in operation, a thing not known in English manufacture. Seventy thousand dozen pairs were manufactured the past year. The company have a contract with Government to supply the navy with twelve thousand dozen pairs the coming year. One hundred and seventy-five thousand pounds of wool, per annum, are used, all American; indeed, all the material consumed is American, save some of the dye stuffs. Most of the wool in the immediate vicinity is used in the establishment.

The looms do their work so easily that a lad of fifteen will weave sixteen dozen pairs per day. The two hundred and fifty operatives receive about five thousand dollars per month for their labors, and the individuals in the surrounding country who do the "seaming," receive about fifteen hundred more, making a total of seventy-five thousand dollars paid out to the people within a radius of fifteen or twenty miles. The articles produced are of excellent texture, and find a ready market. It is a source of pride to the inhabitants of the State to know that after sleeping a Van Winkle sleep of years, New Hampshire is at last seeking with rapid strides her true destiny. An old and matronly lady, while examining the splendid exhibition of hosiery presented, objected to the manufacture as being prejudicial to the morals of the rising generation of girls—"it would lead to idleness," she said, "and the Lord knows that they gad enough now." The remark of the good dame raised many smiles upon the cheeks of the young ladies within hearing.

Plowing Match.

At nine o'clock the Plowing Match was held on ground at the north end of the city, nearly up to the place where the brave revolutionary hero Stark "sleeps his last sleep."

The ground was a sandy loam, well swarded, and requiring a strong team to carry the plow steadily to the depth of seven inches. Seven teams were entered—four single ox, one double team of two-year old steers, and two-horse teams. Each competitor was allowed to "take his time"—a most judicious arrangement, as there was no hurrying, shouting, or use of the whip, but a steady drive as if each was upon his own field. The work in general was well done, especially that performed by the steers, who acted like oxen, bracing their shoulders to the work without the appliance of whip or goad.

As we were under the necessity of leaving the ground before the report of the committee was given, we have no means of knowing who were the successful competitors.

Close of the Fair.

At twelve o'clock the reports of the judges were given from the orator's stand.

After the premiums had been awarded, an auction was held in the tents for the sale of articles. The fast horses also appeared upon the course to gratify the never-tired gaze of that portion of the community who delight to see how quickly a horse can travel a mile. In this connection, it may be remembered that many of the best men of the community begin to doubt the utility of State Fairs. The "fast" men and "fast" horses are in some degree obtaining a prominency which makes everything else subordinate. The tendencies are towards horse-racing, and unless a change is made in this respect, it is apprehended that in a few years this will be the all-absorbing feature of such exhibitions.

A large number of the prominent men of the State were present upon the occasion, besides some from abroad.—*Journal, abridged.*

WATER RAMS—CEMENT PIPES.

The following communication, which we find in the *Country Gentleman*, is one of those practical things, coming home to a majority of farmers, that possesses a real value:

As I very frequently receive queries from all parts of the country, respecting cement pipe and cement cisterns, and their durability, I would be much obliged, if you will permit me, through your journal, to answer several communications in regard to hydraulics.

1. Can hydraulic rams be put up and made to raise the water 80 or 100 feet, and be made durable? My answer, from experience, is—There is one running at this place, which has been in operation seven years, and I see no good reason why it should not continue for 50 more. I find the great failure in these machines is caused by bad setting, as I have fitted over a large number which have given perfect satisfaction.

2. Can cisterns be made on sandy soil, without stone or bricks, that will be lasting? I have been engaged in the business for twenty years, and have put them in all kinds of soil, even quicksand, and am yet ignorant of a failure. I consider stone or bricks used a damage; the natural earth is far better to put the cement on, and with one third the expense.

3. Cement has got to be an article of commerce, and can be found in almost all large villages. I purchase a good article of the manufacturer for one dollar per barrel by the quantity.

4. Does it need slaking, like other lime? No.

5. What proportions do you use, for pipe? One-fourth of lime, as a general rule; but it is necessary to vary from that, as some portions of sand are more porous than others, even in the same bed.

6. The color varies in different localities; the Onondaga cement is a yellowish cast; the Rosendale cement is of a light slate color. Budington and the Newark Company at Kingston manufacture a good article. Onondaga cement requires to be

differently prepared where you form an entire body, such as pipes.

7. Does it become useless after being ground one year? I have put down pipe of it after it had been ground and barreled seven years, and the pipe has been down and in use fourteen years.

8. New pipe can be attached to old, and made tight. It can be drilled, and lateral branches lead off for different purposes.

9. A good set of moulding rods with mould is worth twelve dollars.

10. What is the expense of putting down one inch cement pipe? One barrel of cement will make eight rods of pipe. My price is 37½ cents a rod and furnished, and you can calculate the rest.

11. Is it durable? I believe when properly put down, it is as lasting as time.

Colosse, N. Y. A. Butterfield.

MIDDLESEX NORTH AGRICULTURAL SOCIETY.

We had the pleasure of attending the first exhibition of this new society at Chelmsford, on Wednesday, Sept. 19. The rain of the day previous had laid the dust, and the air was cool and exhilarating. Everybody seemed to breathe free again after the intense heat of nearly all the preceding portion of September, so that everybody was elastic, good-natured and active—and that is a great deal to begin with on a show day. The horses were nimble and showy—the cattle cool and contented—the pigs slept and grunted in their narrow domains, unless stirred up by some visitor eager to see their points—turkeys "gobbled," hens cackled, and rooster most defiantly crowed to his neighbor rooster across the way. All was life and animation and good feeling in the centre of Old Chelmsford, on that day. Even the sun himself, as much of a bore as he has recently been charged with being, was held in good fellowship—for men and maidens, and pigs and poultry, were basking in his beams, and declared they were really congenial.

We first looked at the plowing match. Eleven teams were entered, and ten contested. The ground selected was a sandy loam, without stones, and with only a very slight sward. It was well plowed, as it might have been with only ordinary teams and plowmen—but it was evident, notwithstanding, that there was skill in both, which would have done good work anywhere.

The trial of strength and skill of working oxen was finely contested. The load drawn, including the wagon, weighed 6000 pounds, and it was handled by several with great credit to the teamster and team. After trial by the ox teams, a single horse, the property of Mr. White, of Lowell, was hitched to the end of the tongue of the wagon, started it in the sand and drew it up a sharp pitch to the level ground. His weight, we were informed is 1675 pounds.

The show of cattle was not large, but included some fine specimens. A pair of native oxen, the property of H. A. & S. A. Coburn, of Lowell, 5 years old, weight 3905 lbs. and girting 7 feet 8 inches, attracted all. They are working cattle, and regularly employed on the farm. Elijah M. Reed's Alderney, the best cow, probably, in the State, was there, with a calf by her side. Z. P. Proctor, of Dunstable, and H. C. Merriam, of Tewksbury, each had Durham Short Horn bulls, which were fine. Messrs. Spencer, of Lowell, Sheldon, of Wilmington, G. P. Wright, of Dunstable, Gardner Parker, of Billerica, and Wm. Nichols, of Lowell, had cattle, horses and swine, which were excellent, but which we cannot more particularly speak of now.

The display of *vegetables* was remarkably fine, indeed, we have rarely seen better, and they embraced every kind usually found in New England. We noticed among other marvellous growths, 21 pumpkins, all produced from a single hill, any *one* of which would make a very large house for a family of a dozen persons from Lilliput!

But the room containing the fruit and the handiwork of the ladies was the centre of attraction on that day. We had no desire to select specimens of unusual merit where all were so good. Pears were very fine, and in variety; so were the plums, Washington, Coe's Golden Drop, Gages and others. Some specimens of Crawford's Early Peaches, presented by Mr. David C. Perham, surpassed in size any we had ever before seen. The specimens of apples were of the highest order, and in considerable variety; indeed, it would puzzle some of the State shows to make so fine a display of apples, and if they were not all rightly named, it is only an error that much older societies are quite liable to fall into.

There was some fine *Poultry* on the ground, but the display was not large.

The address was by the Hon. Tappan Wentworth, of Lowell. His topics were, the policy and action of the State in relation to agriculture, a brief history of the origin of the County Society, and the practice of agriculture in England. He thought the hardness of our soil led the earlier settlers into other pursuits, and that the same influences may be in operation now; the demand for agricultural products calls for better cultivation; he spoke of the means of increasing crops, of the profits of farming, and brought together statistics which will be exceedingly valuable hereafter. The address was eminently practical, and adapted to the occasion, and we hope to see it handsomely printed.

The dinner was well attended by some five hundred persons, nearly one-half of whom, we should judge, were ladies—truly a most admirable feature in these social gatherings.

The President of the Society—the Hon. William Spencer—addressed the multitude in a neat and appropriate speech, and remarks were made by Dr.

Bartlett, of Chelmsford, Mr. Wentworth, of Lowell, Mr. Brown, of Concord, and Messrs. Clark and Proctor, of Danvers.

Upon the whole, the first Exhibition of the new Society has been a successful one; but it will take more than one year, to hitch the team and straighten the chain so as to get an even draft and full power; but *the team* is there, and will perform the work effectually by-and-by. We tender our thanks for kind attentions, congratulate them upon their auspicious prospects, and wish them abundant success in all their future efforts in the noble cause.

For the New England Farmer.

THE POTATO BORER.

FRIEND BROWN:—Having your attention called to a worm found in the potato vines, you express a desire to be made acquainted with his history and character. With this worthy I think I may claim an acquaintance of many years standing, and though knowing no good of him, doubt his capacity for any very extensive evil. Unless very greatly deceived in the individual, I have had the honor—am I to say rare honor?—of his acquantance, man and boy, some thirty years, having occasionally met him at his work in potato and dahlia stalks, and more or less every year in corn stalks.

Five years since I had some choice dahlias presented me, which he almost entirely destroyed, before I detected the cause. This year he figured pretty extensively in my stalks, both corn and potatoes, which I attributed—as I did the excess of grubs and other similar vermin—to our cold, backward spring. He is about one inch in length, with a dark head, flesh-colored neck, tail and belly, and a brown or chocolate-colored back; in motion, nimble and active, moving up and down his hole in the pith or heart of the stalk with great ease and speed, for a worm, and when placed upon the ground, propelling as if he heard the dinner-horn. Evidently a *stalk*-jobber by profession, though rarely seen, I presume, at the broker's board. He has, however, completely wormed himself into the business, and is quite as successful in his operations, and as essentially uses up the stocks upon which he operates, as the most accomplished among them; I should never suspect him of the "potato-rot," however, as does one of your correspondents, *stalk*-jobber though he be.—Indeed, from my knowledge of his habits and propensities, I should deem him much more capable of tunnelling the Hoosac, and that, you perceive, is setting him down as a very great bore, as since that scurvy affair of the dahlias I have a perfect right to do. L. P.

East Woburn, Sept., 1855.

LAKE SUPERIOR COPPER MINES.—From reliable sources we learn that the production of copper this season will be about 5,000 tons mine weight, amounting to say 3,500 tons of ingot copper, being fully one-seventeenth of the entire product of the world. The product of another year will, in all probability, be much greater than that of the present. The value of copper for the present year will be about $1,750,000. Another year it will probably reach $2,500,000.

EXTRACTS AND REPLIES.

BOOKS FOR FARMERS.

In your paper for April, page 197, in answer to one of your correspondents, you gave a list of books. I had Johnston's Chemistry and Geology, Browne's Muck Manual, and Youatt and Martin on Cattle; the others I have purchased, with the exception of Downing's Fruit and Fruit Trees. In asking for Davy's Agricultural Chemistry, they gave me a London edition of 1844, by Sir Humphrey Davy, but edited by John Shur. Was that right?

Is there no later edition of the Farmer's Encyclopædia and Harris on Insects, than 1852? I have perused these books with pleasure and profit.

REMARKS.—There has not been, to our knowledge, an American edition of Davy's Chemistry, and no later edition of the Encyclopædia or Harris' Insects than 1852.

WANTS TO BE A FARMER—QUESTIONS HARD TO ANSWER.

"I wish to ask if there is much chance for a young man without money to get ahead in the country? Is there much time for reading and study? Do you know of a good farmer that wants, or would take on trial such a youngster as I shall describe myself to be? I am 5 feet 8 inches high, rather slender, 19 years of age, have a good common school education; I am industrious, honest and sober, and can obtain certificates to these facts from reliable persons, and I neither chew or smoke tobacco."

REMARKS. — *Industry*, *Honesty* and *Sobriety* are three cardinal virtues, and they do not often fail of success. But it is an up-hill work to go to farming "without money." That must be earned or borrowed first. Now who will take our young friend, on trial, among our numerous good farmers, and pay him a fair compensation for his labor, and teach him the art which he aspires to learn? That, in our opinion, is just what his case requires—to go into a kind family, on a good farm that is conducted systematically and with some considerable degree of science, where he could at the same time earn something with which to make a beginning, and acquire a knowledge of the business of the farm.

We could refer to gentlemen in our own, and many other towns in the State, who could be exceedingly useful to young men in this way, and not be losers themselves. Most happy shall we be to inform "F. E. C.," of N——t, of such an opportunity whenever it is made known to us. In the meantime, we refer him to the article in another column, on the *Study of Agriculture*, and to the advertisement of Prof. NASH.

FINE APRICOTS.

I send you a few of my apricots, for the purpose of ascertaining the name of the kind. I suppose them to be either the *Moorpark* or *Peach Apricot*, but as I have no other sort with which to compare them, I cannot satisfy myself of which variety they are. The descriptions in the books are very much alike. On the 25th of last month, I took one from

the tree, measuring full 7 inches in circumference, and quite a number of others from 6 to 6½ inches; and six of them weighed a pound.

The specimens I send you are not so large as they are the last of the season. Hoping they will reach you in good condition, so that you may test their deliciousness, I remain, very respectfully yours,

Leominster, Sept. 5. C. C. FIELD.

REMARKS.—The apricots were received in good condition, and were as delicious as any we have ever tasted. Indeed, we never saw finer grown at the South. We think the variety the *Peach*, though the *Peach* and *Moorpark* bear a strong resemblance. Thank you, sir.

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WHAT IS THE EXPENSE OF KEEPING A HORSE?

MR. EDITOR:—Cannot some of your numerous subscribers, who have made and are continually making experiments, give us the actual expense attending the keeping of horses? Probably there are more persons directly and indirectly interested in this matter, than most any other which could be mentioned.

We will say the horse is a good feeder, weighs nine hundred pounds, and is required to labor every day, to that extent which will not injure him; hay at twenty dollars per ton, and meal at one dollar per bushel. What I would wish to know, is, what would probably be the expense of keeping a horse, per annum, under these circumstances, including shoeing? Can the horse be kept in proper condition for less than one hundred and twenty dollars? In this I calculate he will consume two tons of hay, about sixty-eight and a half bushels of meal, and the cost of shoeing ten dollars. If there is any cheaper or better way, I should be very glad to have some of your correspondents inform me what it is, and much oblige one who is deeply interested in the subject. Respectfully, N. Q. T.

East Weymouth, Aug. 27, 1855.

REMARKS.—Will some of our numerous readers who have paid attention to this matter, reply to the important queries propounded above?

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WORK DONE BY MOWING MACHINES.

On looking over the return of work done by mowing machines, the present season, I find *Manny's Machine*, made by Adriance & Co., of Worcester, has cut 150 acres in 140 hours, averaging *one and a half tons* to the acre, at an expense of accidents less than $5. If this machine will continue to operate as well, I think it will not fail to find employment.

—

A YELLOW LOAM SOIL.

I should be much obliged to you for a description, through your paper, of a yellow loam soil; i. e., if that is a proper name for a soil.

A NORTHERN SUBSCRIBER.

Canaan, Vt., 1855.

REMARKS.—Will some one cultivating such a soil describe it to the inquirer?

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WOOL.—"J. B. P.," of Rutland, Vt., will please accept our thanks, for his proposition to furnish us samples of wool.

LADY'S DEPARTMENT.

DOMESTIC RECIPES.

CANDIED ORANGE OR LEMON PEEL.—Boil the rind from thick skin oranges or lemons in plenty of water, until they are tender, and the bitterness is out; change the water once or twice, if necessary. Clarify half a pound of sugar with a half a cup of water for each pound of peel; when it is clear, put in the peels, cover them, and boil them until clear, and the syrup almost a candy; then take them out, and lay them on inverted sieves to dry; boil the syrup with additional sugar, then put in the peels; stir them about until the sugar candies around them; then take them on a sieve, and set them into a warm oven, or before a fire; when perfectly dry, pack them in a wooden box with tissue-paper between.

TO MAKE FRUIT-PIES.—No *under crust* should be made to apple or any fruit-pie. It is always heavy and not fit to eat. Place a narrow rim of paste around the edge of the plate, and fill with the fruit, either raw or stewed, and cover it. The juices will be retained much better, and it will save a *sight* of flour and butter, which is no trifling consideration in these days, and what is of more consequence, save *dyspepsia*, which costs more. After cutting, they are taken out with a spoon.

MILK IN BREAD.—I have more objections than one to milk in bread, but the most serious is, that persons of advanced age, who are in the daily use of milk-made bread, will be expected to suffer from an over supply of osseous or bony matter, and particularly if their kidneys be affected. Bread should always be made with water, and when so made it is suitable for the aged and the young, the sick and the well. And as for sour milk, a microscopic view would, I presume, present additional arguments against its use.—*Water Cure Journal.*

TO PRESERVE IRON AND STEEL KNIVES FROM RUST.—Procure some melted virgin wax—the purer the better—and rub it thoroughly over the blades of the knives. After it has dried, warm the knives, and having carefully removed the wax from the surface, rub them briskly with a dry cloth, until the original polish is fully restored. This will fill all pores with the unctious and minute particles of the wax, which will adhere firmly, and prevent the intrusion of water or moisture which is the cause of rust. They will retain their brilliancy for weeks, if used.

TO EXTRACT A GLASS STOPPLE.—Wrap a large strip of wool around the neck of the bottle, once; fasten one end of this firmly to some stationary object, and hold the other end in the hand. "See-saw" the neck of the bottle, and the friction will so heat the latter that it will expand sufficiently to allow the stopple being removed with ease.

TO CLEAN PAINT.—Smear a piece of flannel with common whiting, mixed to the consistency of common paste, in warm weather. Rub the surface to be cleaned quite briskly, and wash off with pure cold water. Grease spots will in this way be almost instantly removed, as well as other filth, and the paint will retain its brilliancy and beauty unimpaired.